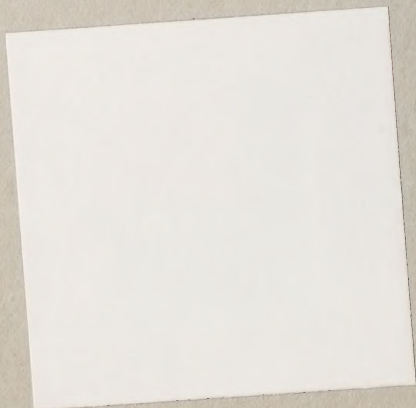
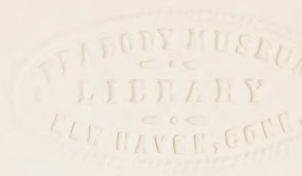


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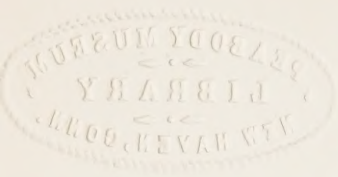


THE MUSEUM JOURNAL

VOLUME XVIII

PHILADELPHIA

1927



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DR. GEORGE BYRON GORDON

THE MUSEUM JOURNAL

Vol. XVIII

PHILADELPHIA, MARCH, 1927

No. 1

DR. GEORGE BYRON GORDON

IT is not an easy duty to write for the MUSEUM JOURNAL some account of DOCTOR GEORGE BYRON GORDON and of my friendship for him. He was one for whom I had an unusually deep respect and affection and I hope and believe that our friendship was enjoyed by him in equal measure.

Our intimacy began in 1911. I had resigned the Provostship of the University on the thirty-first of December, 1910, and on January 18, 1911, the University as a body gave me a dinner in the large hall of the University Gymnasium. I had at that time been a Trustee of the University since June 6, 1876, and then expected to continue to fulfil my duty as a Trustee but had not decided on any definite form of activity. I remember Doctor Gordon's foreword to his address upon the occasion of this University dinner. He was a great reader and he took as his text for this talk whose subject was the University Museum, this couplet from Alfred Austin's drama, *The Human Tragedy*,

It was as quiet as could quiet be
And all the place seemed lapped in vacancy.

In Doctor Gordon's mind the purpose of the Museum was to be nothing less than to record the history of mankind. Its collections must tell the stories of Egypt and Babylonia, of the Far and Near East, of Greece and Rome, of Mexico and Peru, of our own land and also that earlier legend handed down to us by wrought flints and ivories.

In one of Doctor Gordon's remarks he expressed the desire that if I proposed to take an interest in any one of our University departments, I might choose the Museum, whose Director he then was. His suggestion greatly attracted me and it was in response to it that I became a member of the Board of Managers of the Museum. Afterwards, upon the death of Mr. Eckley Brinton Coxe, Jr., I was

elected President of that Board, a position I still hold as I write this affectionate reference to Doctor Gordon. It is not often that so deep a personal interest is felt by the president of any university department as from the very beginning began to find its life and motive in my feelings towards Doctor Gordon. The present Provost of the University speaks of Doctor Gordon's career in the following words: "He was an explorer, anthropologist, archæologist, author, and teacher." To these words I will add—he was a loyal friend.

In such an article as this, there should be included a brief statement of the cause of his death. He had with a number of other travelers, explorers, and men interested in archæological subjects, attended a dinner given by the Wilderness Club at the Racquet Club in Philadelphia on the evening of Saturday, January 29th, and after the dinner he and others remained, listening to the account of the travels of Mr. Roosevelt's two sons, who were of the number of the guests. After this talk among men of like minds upon the purposes of the meeting, Doctor Gordon and two others went to the first floor of the Racquet Club, only to find that he had left his overcoat on the second floor. He started to walk up to this floor to recover it, but no one saw what immediately followed. Probably from a heart attack he fell backwards after beginning the ascent and struck his head upon the marble floor of the Club, severely fracturing the skull. He was taken at once to a nearby hospital unconscious; he never regained consciousness, and died in the early morning hours of Sunday, January 30th.

Doctor Gordon was born August 4, 1870, at New Perth, Prince Edward Island. He was educated at the University of South Carolina and at Harvard University and received at the latter institution the degree of Doctor of Science. In 1894, he was appointed Director of the Harvard University Expedition at Copan in Central America and continued his archæological explorations in Central America until 1900.

From the year 1903 until his death, Doctor Gordon was associated with the University of Pennsylvania and the Museum. In 1903 he was appointed Curator of the American Section of the Museum, and in the following year Lecturer on Anthropology in the University. In 1907 he was appointed Assistant Professor of Anthropology, which position he held until 1915. In 1910 he was made Director of the Museum. In 1926 the University of Pennsylvania conferred upon him the honorary degree of Doctor of Science.

Under Doctor Gordon's direction and wise supervision, buried sites and cities in Mesopotamia, Egypt, Crete, Palestine, and North, Central, and South America, have yielded up their hidden treasures, many of which form important parts of the great collections in our Museum. To the collections obtained through excavations and explorations have been added by gift and by purchase works of art from all parts of the world. It was through Doctor Gordon's able efforts that the Museum has been brought to the high plane of perfection where it ranks among the first museums in this country and abroad. He had the gift of selecting for it only the choicest and best specimens and had also the faculty of arranging them so that they might give the fullest pleasure to visitors. I believe that it may be truly said that of the many thousands of objects there is not one which does not take high rank as being entitled to be preserved amongst the choice collections of the Museum which he had built up. The Chinese Collection best expresses his personality. He was instrumental in bringing to that Section some of the finest works of art which China has produced and it may well be said that that collection will ever stand as a fitting memorial to his taste and discrimination in assembling great art objects for the enjoyment and benefit of the people of this City.

Doctor Gordon was a wise and able administrator and every one in the service of the University Museum respected him highly. No man-of-war could have passed a closer inspection upon any day or upon any occasion with higher commendation than could the Museum under his careful supervision. He is widely known by his published writings on anthropology, archæology, and subjects of general interest. Among these may be mentioned, PREHISTORIC RUINS OF COPAN, RESEARCHES IN THE ULOA VALLEY, CAVERNS OF COPAN, THE HIEROGLYPHIC STAIRWAY AT COPAN, THE SERPENT MOTIVE IN ANCIENT ART, THE BOOK OF CHILAM BALAM OF CHUMAYEL, IN THE ALASKAN WILDERNESS, BAALBEK, THE WALLS OF CONSTANTINOPLE, and RAMBLES IN OLD LONDON.

My contact with Doctor Gordon was constant, both by his visits to my office upon a request that he come to see me and through our many talks daily over the telephone; he was always to be found at his post. In every way his work as Director of the Museum was of the highest quality. After his tragic death, it was truly said that the loss to the Museum is great but that the greatest task before us is to find anyone who can replace him. It is our hope that we shall

find a man who will be a worthy successor to Doctor Gordon as Director of the Museum, but there is no one who can take his place in that circle of friends which he had made in the scientific and social world and in that larger group which had for him a deep affection and admiration, inspired by his writings, his lectures, and his informal talks. The latter were many, for he was constantly sought by organizations in the City to tell not only of archæology but also of those other subjects in which he was interested.

Doctor Gordon was a member of the American Philosophical Society, the Franklin Inn Club, the Lenape Club, the Rittenhouse Club, the Explorers Club of New York, the American Anthropological Society, the American Ethnological Society, the Authors Club of London, and a Fellow of the Royal Geographical Society.

The funeral services were held at my own home at 1618 Locust Street and he lies interred in the beautiful and peaceful Churchyard of Old St. David's.

CHARLES C. HARRISON.
March 24, 1927.

THE DISCOVERIES AT BETH-SHAN DURING THE 1926 SEASON

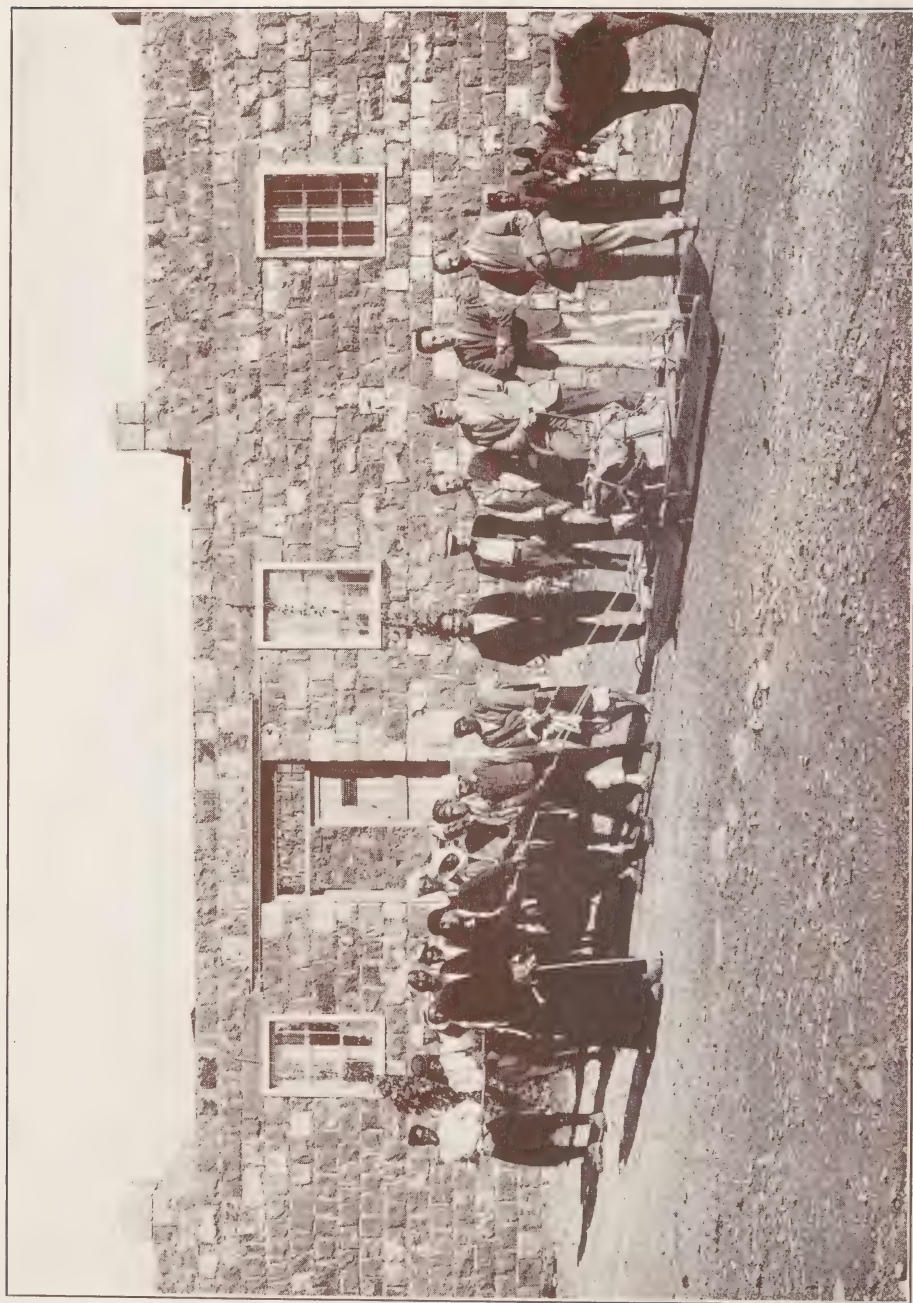
BY ALAN ROWE,
Field Director, Palestine Expedition

THE excavations conducted at Beisan, the biblical Beth-Shan, by the Palestine Expedition of the Museum of the University of Pennsylvania, were resumed on the 21st of August last, and continued until nearly the end of December. It is gratifying to record that the finds made during this season were in every way as important as those made during the season of 1925.

The plans for the 1926 season comprised work on the tell and in the vast cemetery to the north, from which the tell is separated by a swiftly running stream called the River Jalud.

In addition to the actual work of excavation, a comprehensive survey of most of the area was made in order that we might ascertain various important details for our records. The result of the survey is given on the plate specially prepared for this article, which shows a section running through the cemetery, river, and tell, from northeast to southwest. From the upper section on the plate it will be observed that the original top of the mound was 346 feet below the level of the Mediterranean Sea, and that, owing to the contour of the rock base, the height of the mound at the north was 213 feet and at the south 134 feet. The oldest of the eight main superimposed city levels already found on the tell, each equivalent to a historical period, or to a series of historical periods in which sometimes the same buildings were used over and over again, represents the lowest part of the tell in which excavations have yet been carried out. The bottom of this oldest level is about 37 feet below the original top of the tell. The base of the mound itself, along the line of the printed section, is 899 feet in length. It will be seen that the bed of the River Jalud is about 607 feet below the sea level, or 261 feet below the tell top.

Brief details of the eight city levels must now be given in tabulated form, for such are absolutely necessary for a correct understanding of the intricate history of Beth-Shan which is slowly being revealed as a result of our excavations. The relative positions of



Workmen hauling column base from the Northern Temple of Rameses II, "House of Ashtaroth," to the Expedition House. Members of the Expedition, with the water donkey, are grouped around.

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the levels are given in schematic form in the lower section on the plate, where also the positions of the various churches and temples, already referred to in past numbers of THE MUSEUM JOURNAL, are indicated by letters of the alphabet. That part of the tell in which excavations have not been carried out is indicated on the sections by oblique hatching.

CITY LEVEL ON TELL	HISTORICAL PERIODS REPRESENTED ON EACH LEVEL	DATES
I	Arabic; Crusader, etc.....	636 A.D.-XIXth cent. (approx.).
II	Byzantine, or Eastern Roman Christian (<i>two churches</i>).....	330 A.D.-636 A.D.
III	Hellenistic (<i>temple</i>); Jewish; and Roman.....	301 B.C.-329 A.D.
IV	Late Ramesside; Philistine; Israelite; Assyrian; Scythian; New Babylonian; Old Persian, etc.	1224 B.C.-300 B.C.
V	Rameses II (<i>two temples</i> . Northern one, "House of Ashtaroth" of I Samuel, xxxi, 10, and southern one, "Temple of Dagon" of I Chronicles, x, 10. Both were in use until at least Israelitish times, i.e., c. 1000 B.C.)	1292 B.C.-1225 B.C.
VI	Seti. Two levels: Late Seti; Early Seti (<i>temple</i>)	1313 B.C.-1292 B.C.
VII	Amenophis III (<i>temple</i>). Length of reign.....	1411 B.C.-1375 B.C.
VIII	Below Amenophis III. Period represented by level not yet identified.....	? -1412 B.C.

During the time from 1374 B.C. to 1314 B.C., the temple of Amenophis III was still in existence, so that the VIIth level may really be said to have come to an end at the latter date. Further, the two temples in the Vth level were undoubtedly in use during the early part of the IVth era, that is to say, during Late Ramesside, Philistine and perhaps even Israelitish times, i.e., to about 1000 B.C. As such was evidently not the case with many non-religious buildings, we have, with the above exceptions, and until further excavations decide the point, identified the Vth level as a whole with the era of Rameses II.

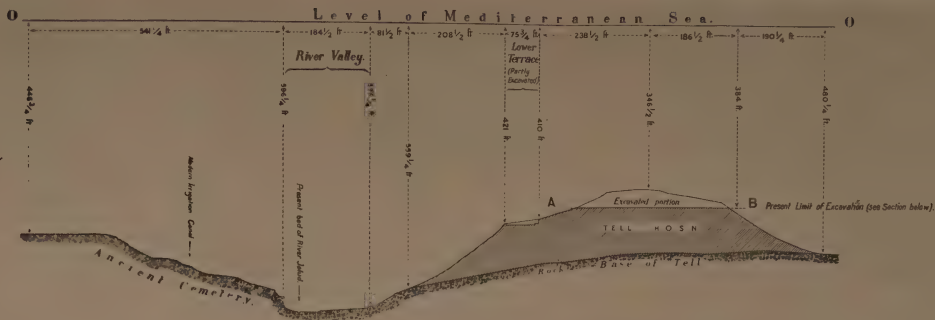
The excavations on the tell, during the present season, were carried out in the IIId, IIIId, IVth, Vth, VIth, VIIth and VIIIth levels, many parts of which remained, and still remain, to be cleared, owing to the fact that in order to fix the dates of our upper levels we were forced to make a large cutting in a part of the mound down to the VIIIth level. Had we simply gone ahead and removed the whole of each city level as we came across it, and not made the

cutting, it would probably have been many years before we could have established anything like a correct system of chronology for our excavations. That our method is justified is shown by the important results obtained.



View of the Roman Bridge, with Arabic superstructure, over River Jalud, just below the Expedition House.

Having thus discussed our levels we may now proceed to describe the discoveries of the last season, the plan being, so far as the tell is concerned, to describe the finds in each level in turn, taking the levels in chronological order.



GENERAL SECTION through Ancient Cemetery, River Jalud, and Tell Hosh, BETH-SHAN.
From north-east to south-west. Looking south-east.

100 0 100 200 300 400 feet

KEY to Positions of Sacred Buildings -

- a Byzantine Churches (two).
- b Hellenistic Temple.
- c House of Asherah.
- d "Temple of Dagon" - I Chron. x. 19.
- e Sati I Temple.
- f Amenophis III Temple.



SPECIAL SECTION A-B (enlarged) through top of Tell HOSH, showing in schematic form the Levels Excavated.

10 11 20 30 40 50 60 70 80 feet

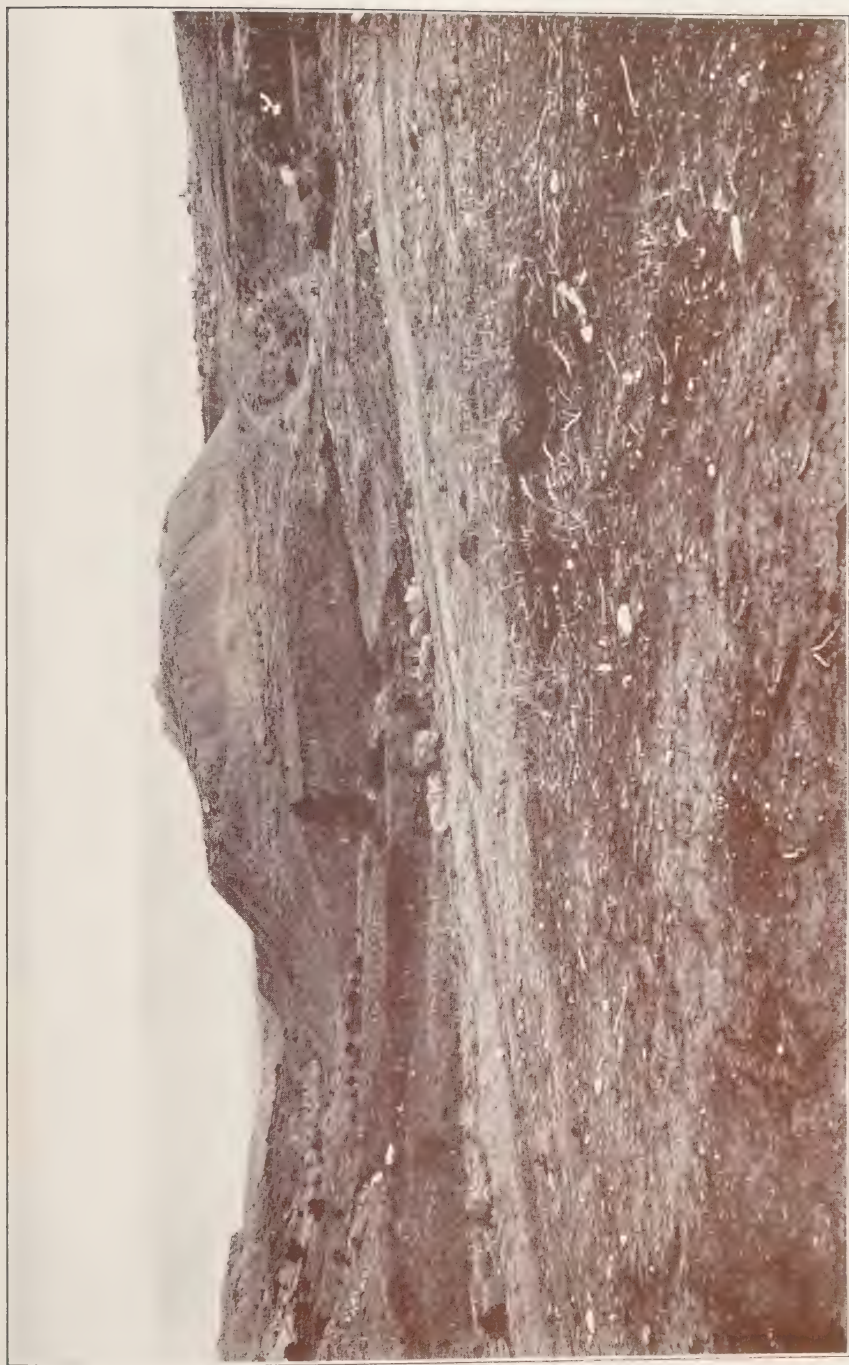
DESCRIPTIONS OF LEVELS -

- I ARABIC-CHRISTIAN, A.C. 639 A.D. - IX B.CENT.
- II BYZANTINE (CHRISTIAN) 530 A.D. - 639 A.D.
- III HELLENISTIC-ROMAN. 300 B.C. - 250 A.D.
- IV LATE-RAMENSIDIAN, A.C. 1294 B.C. - 300 B.C.
- V RAMESIDIAN II 1892 - 1426 -
- VI KETI I 1312 - 1292 -
- VII AMENOPHIS III 1411 - 1375 -
- VIII BELOW AMENOPHIS III ? - 1412 -

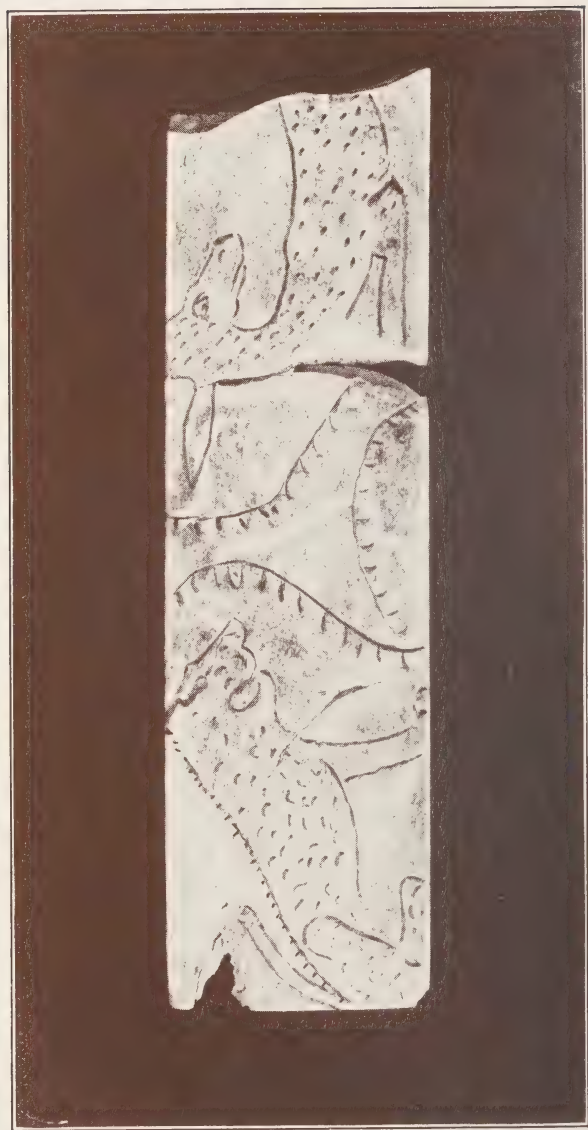
NOTE: From 1376 to 1312 B.C. the Temple of Amenophis III was still used. The Philistines and Israelites were in the 12th era. The two Temples of Yeha were in use until about Israelish times.

J. F. S. S. S.
Alan R. S. Field Director

Special sections through ancient cemetery, River Jalud and Tell Hosh, Beth-Shan. The lower section shows the eight levels already found.



General view of the site being excavated at Beth-Slian, showing in the centre Tell Hosi, or Mound of the Fortress, and on the extreme left hand side, the ancient cemetery. Between them is the River Jalud.



Ivory inlay showing figures of a lion and a gazelle on either side of a pool of water with herbage round about it.
From VIIIth city level on tell.

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VIIITH CITY LEVEL

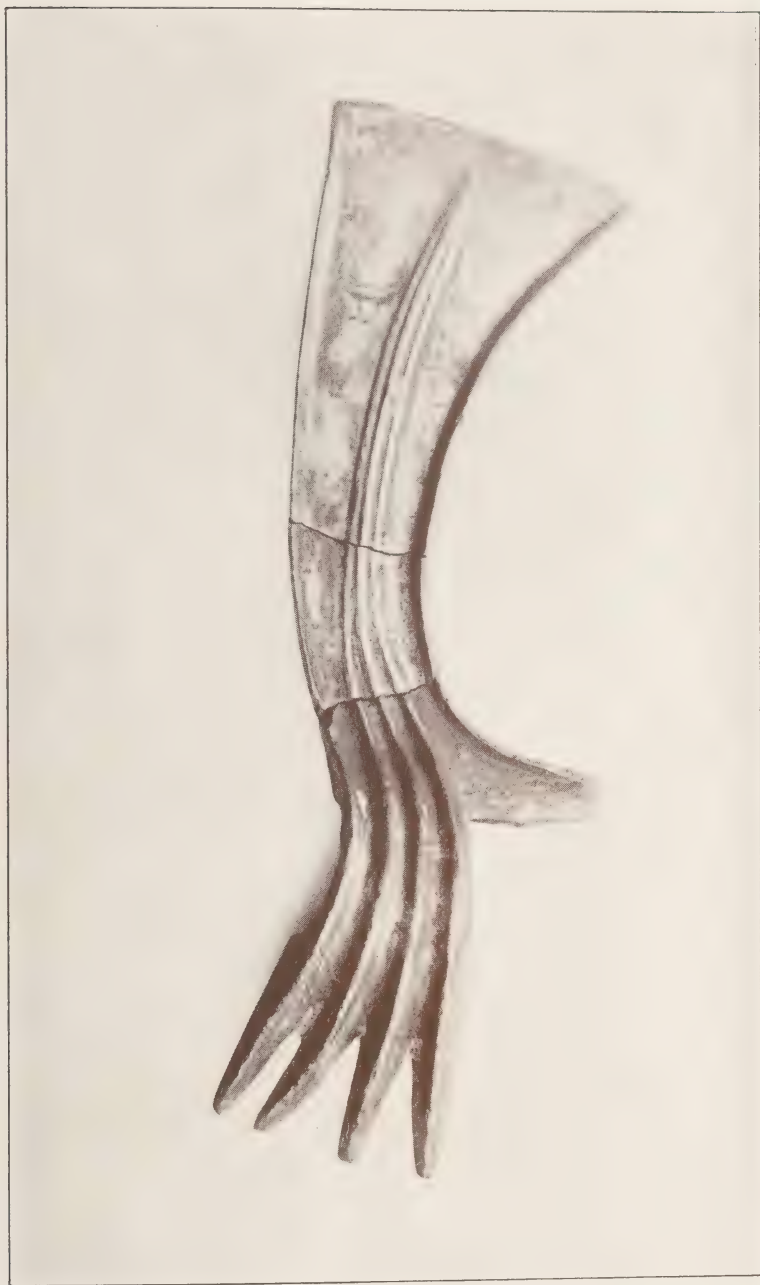
After we had cleared away the great temple made by Amenophis III, unearthed in the VIIth city level during the 1925 season, we found, this season, in the level below (the VIIIth) traces of what may be still another sacred place. This consists of two cylindrical stone bases, aligned from west to east, with a layer of stones between them. On an adjoining parallel layer of bonded stones was lying a loose block of smooth basalt, long, and roughly shaped. It may be that sacred upright stones stood on the bases, and that the long stone was one of them. Just to the east of the bases is a fireplace, and near by, a semicircular stone with a stone rubber on it which was used for the purpose of grinding corn. To the south of the bases we found a scarab of Thothmes III, who died about thirty-six years before Amenophis III came to the throne. It is therefore possible that the VIIIth level belongs to the time of the former monarch. Some little distance to the north of the fireplace, etc., we discovered three other column bases, which appear to form part of a sacred building which is as yet only partially cleared. Just to the south of these particular bases were unearthed a quantity of fragments of beautifully painted pottery; an ivory inlay showing the figures of a lion and a gazelle on either side of what seems to be a representation of a pool of water with herbage around it; a crude clay model of a lion's head; and the rear portion of a well made pottery model of a lion.

VIITH CITY LEVEL

We have now cleared away the whole of the Amenophis temple, further proof of the date of which was furnished by the finding of faience cartouches, and a magnificent finger ring of the same material, all bearing the name of Amenophis III. These had been placed below the walls and floors as foundation deposits. Near them were many inscribed Syro-Hittite cylinder seals, of which nearly fifty have now been recovered from this level; gold rosettes; variegated Egyptian glass vases; six scarabs, two of which were mounted in gold; crescent shaped gold pendants; beads; amulets; and a complete bronze Syrian dagger with inlaid wood handle. Not far from the dagger was one of the most important objects of its kind ever found in Palestine or anywhere else. This consisted of a magnificent Hittite axehead of bronze, having a curved blade at one end, with

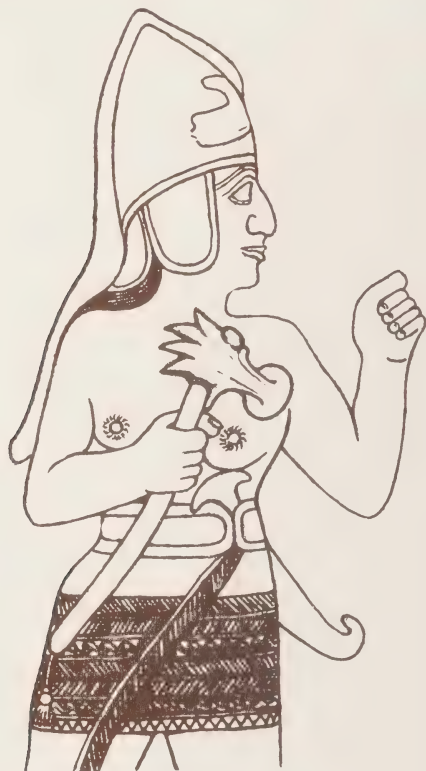


Syrian dagger of bronze with inlaid
wood handle. Below Amenophis III
Temple. VIIth city level.



Bronze Hittite axehead. Below Amenophis III Temple. VIIIth city level.

the other end in the form of a hand with out-stretched fingers, the thumb being downwards. The blade has a peculiar crescent shaped device on it. This axehead, which is the only example of its kind known, is very similar to one held by a Hittite king figured on the royal gate of Boghaz-Keui, the Hittite capital in Anatolia. It must be remembered that at about the time the temple was built, the Hittites were advancing into North Syria. Hence it is not really surprising to find traces of their culture in Palestine.



Representation of Hittite Axe on Sculpture
in Hittite Capital, Asia Minor.

In close proximity to the axe and the dagger, and also below the floor of the Amenophis temple, were two most interesting and important objects—one a basalt model of a chair or throne of Cretan (Minoan) type, and the other a limestone model of a table or altar, also of Cretan type. The chair is absolutely identical in shape with certain old Cretan hieroglyphs representing a throne. But although its form is Cretan, the object bears Egyptian emblems. On either side of it is a winged Set-animal, while on its back are depicted a

vulture with outstretched wings and the *ded*-pillar emblem of stability with arms and hands holding the sign of life. The small table has squares painted on its top and sacred trees represented on its base; its shape is identical with that of the table figured in Cretan sealings, where we find it associated with sacred trees. (Compare



Basalt model of chair or throne of Cretan type with Egyptian design showing a winged Set-animal. Below Amenophis III Temple. VIIIth city level.

the "gardens" of Isaiah, lxx, 3.) Near the chair and altar was discovered a model of a sacred tree or perhaps of a sacred standing stone. There is no doubt whatever that these models were associated together as a group of cult objects—probably the throne represented the seat of a god and the god himself, the decorated table

the altar, surrounded by trees, on which the offerings were placed, and the tree or stone perhaps the female consort of the deity. Models of certain altars associated with figurines of deities and with cylindrical cult objects not unlike those found at Beth-Shan, are already known from Crete.

With regard to the tree or stone, it must be remembered that in most old Palestinian sanctuaries there were two sacred emblems. These were the *mazzebahs* (stone columns) and *asherahs* (wooden



Limestone model of a Cretan table-altar. Below Amenophis III Temple. VIIth city level.

poles representing trees), the latter word being translated in the Authorised Version of the Old Testament as "groves," as for example in II Kings, xxiii, 14. At times even the Israelites departed from the worship of Yahweh and set themselves up *asherahs* and *mazzebahs*, as we see from II Kings, xvii (Revised Version), etc.: "The children of Israel did secretly things that were not right against the Lord their God, and they built them high places (i.e., sanctuaries) in all their cities. . . . And they set them up pillars and Asherim upon every high hill, and under every green tree: and there they burnt incense in all the high places, as did the nations whom the Lord

carried away before them . . . They made them molten images, even two calves, and made an Asherah and worshipped all the host (i.e., the stars) of heaven, and served Baal." Sometimes the pillar represented the god and the pole the goddess.

In the floor débris at the southern end of the Amenophis temple we found a clay cylinder terminating in the head of a pig, and also a part of a plaque with a serpent coiled round its upper part. The



Pottery model of a hippopotamus. Early Seti level. VIth city level.

former object is extremely interesting and belongs to the same class of cylindrical cult objects as those which were found, in 1925, in the temples of Seti I and Rameses II. A Cypriote vase is already known, made in the shape of a pig, of which the head bears a striking resemblance to that of the animal figured on the cylinder just discovered by us.

The excavations of the temple have shown that at the time the building was erected there were two strong foreign influences present

at Beth-Shan—the *one* from Cyprus and the Ægean regions (of the early part of the Late Helladic [Mycenæan] III period, 1375–1200 B.C.), represented by the cult objects, such as the stand with the pig's head, the sacred Cretan throne and table, and *the other* Syro-Hittite, represented by the cylinder seals and the Hittite axe-



Pottery model of a horse, showing horse's head with headstall, etc. Early Seti level. VIth city level.

head. The actual route followed by the introducers of the cult objects was doubtless by way of Cyprus from Crete or South Greece, for there was a Mycenæan kingdom founded in Cyprus about 1375 B.C. The Mediterranean influence which entered Beth-Shan at this time, was therefore connected with this eastern movement

of peoples from the Ægean and other regions. The final phase of the Mediterranean influence was represented by the domination of the iron using Philistines, who were doubtless driven out from Beth-Shan by King David about 1000 B.C. With their advent, the Bronze Age, which had hitherto flourished, came to an end. That there was a strong Cypriote-Ægean influence in the old religion of Palestine was never fully recognized until our recent discoveries were made.

In a room just to the north of the temple we came on two large blocks of stone, one laid upon the other, with small stones round them, which perhaps formed part of a great altar of sacrifice, as a great quantity of ashes and fragments of bones was lying on the floor round about. Very few ashes were found near the altars inside the temple. Taking everything into consideration, we may perhaps conclude that the majority of the holocausts were made on the altar outside the actual building, but well within the precincts of the sacred area. Near the great altar, and on the floor of the room, which was of hard beaten clay, we found a basalt incense or offering stand, cylinder seals, a bronze spearhead, fragments of various bronze tools, a basalt door socket, a fragment of a very fine glazed pointed base vase of Egyptian design, and part of a Cypriote *kernos* or ring stand with small vases attached to it. In the same room were large numbers of trumpet shaped bases of vases made of well baked pottery. Other pottery objects included several cups of different shapes, fragments of a large crater resembling a certain Cypriote type, pottery heads of ducks painted in vivid colors, doubtless from some vessel used for religious purposes, and small glass petal inlays. The same level yielded also bronze arrowheads, a ring shaped vase stand of alabaster, and a large glazed bowl, decorated on the outside with finger prints, similar in make and colour (yellowish-green) to early Arab glazed ware. Fragments of this ware were also found in the VIIIth city level.

Everything points to the fact that the VIIth city level is one of the most important of the levels yet reached, and it is hoped next season to clear much more of it. During the first part of the period it was occupied, kings Amenophis III and Amenophis IV, or, Akhenaten, of Egypt, were communicating with their governors and other peoples in Western Asia by means of the famous cuneiform correspondence (Beth-Shan is actually referred to on one tablet) found at Tell al-Amarna; while towards the close of the period kings Smenkhkara, Tutankhamen, Ai, and Horemheb held, in suc-



Part of door jamb from a room to the north of the great Seti I temple. Late Seti level. The inscription reads: "Praises be to thee, O beautiful one, who possessest everlastingness . . . thou didst fashion the Nile." VIth city level.

cession, the throne of Egypt which no longer, alas, owing to Akhenaten's attitude, held sway over the rich countries of Syria and Palestine. It was not until the time of Seti I, the founder of the VIth city of Beth-Shan, that Egypt once more held Palestine.

VITH CITY LEVEL

During the last season, work in the VIth city level was confined to the area immediately to the north of the temple of Seti I. The temple itself had already been cleared away in the 1925 season, when its date was accurately fixed by the finding of many faience cartouches bearing the name of Rameses I—the immediate predecessor and father of Seti I—which had been placed as foundation deposits under the walls and floors of the building. The presence of the name of the former king on the objects is accounted for by the fact that Seti was the co-regent of Rameses I for some little time, and that the Syrian campaign was probably inaugurated during the joint reign. However, we find that Seti erected at Beth-Shan a monument, recording among other things his capture of the fort, which is dated in the first year of his reign. A people called the Apiru are referred to in another monument left by him on the tell, though in what connection it is difficult to say, as the text is badly weathered. Some authorities identify them with the Hebrews. The latter monument was discovered, in 1921, in the débris of the IID city level, where it had apparently been used as a door sill. The base on which it evidently once stood was found in 1925 in the Rameses II stratum. The former inscribed monument was found in 1923, in the Vth city level, and as it was erected near a large stele set up by Rameses II, it must be that Rameses brought it up, together with the other Seti stele, from the lower level, when he built his new city on the tell top.

The VIth city level seems to consist, at least outside the temple area, of two distinct levels, which we have called Early Seti and Late Seti respectively. The temple itself does not appear to have been affected by the addition of the extra stratum of houses, which never covered any part of its area, so we must assume that religious observances were carried out in the building for the whole of the time represented by the VIth level.

In the Early Seti level to the north of the temple we found some very interesting objects, which comprise a well made pottery model of a hippopotamus on a flat base, a part of a pottery model of a



Interior of Northern Temple of Ramesses II, the "House of Ashtaroth" of I Samuel, xxxi, 10. View looking southeast, showing four column bases as found. The original floor level came just within a little distance of the top of the columns. When excavated another, later, floor was found which covered the whole of the bases. In the lower left hand corner is a room of the Vth city level. Vth city level.

horse showing the animal's head with headstall, Egyptian amulets, and so on. Near by were some large teeth which have been identified by the British Museum as those of the upper left cheek of a small equine—almost certainly an ass. In this connection it may be interesting to recall the fact that several molars from the right lower jaw of an ass were found many years ago in Tell el-Hesi in Palestine. Not far away from the teeth were fragments of a hard metallic pottery inlay, apparently used to imitate inlays of ebony and grained wood; a pottery figure of a serpent on a flat base (pierced with holes for suspension on a wall); and part of a cylindrical cult object. Another important find was an open crucible of pottery with particles of bronze still adhering to the inner surface.

From the Late Seti level, also to the north of the temple, came a very valuable treasure in the shape of a solid mass of silver ingots, earrings, pieces of wire, etc., and a gold armlet, three and a half inches in diameter. Before we disintegrated this mass, the weight of which was 2 pounds 15 ounces avoirdupois, we noticed that its exterior bore traces of the cloth bag in which it had originally been kept. In a room just to the east of that in which the treasure was unearthed we saw traces of a large stone doorway, comprising a sill, door-socket, door-jambs, etc. Two fragments of the door-jambs were found to be inscribed. One of them has a double band of hieroglyphs on it which contains part of an address to the Egyptian solar deity: "Praises be to thee, O beautiful one, who possessest everlastingness . . . thou didst fashion the Nile . . ."

VTH CITY LEVEL

When Rameses II built the Vth city level he erected two temples in it, particulars of which have previously been given in THE MUSEUM JOURNAL. These two temples, which were still in use during the early part of the period representing the IVth city level, are evidently those referred to in the Old Testament, the northern one being the "house of Ashtarothe" of I Samuel, xxxi, 10, and the southern one, the "temple of Dagon" of I Chronicles, x, 10. The southern temple had already been removed during the 1925 campaign, so in the past season it was necessary to remove the northern one in order to reach the levels below it. The latter building contained four stone column bases *in situ*, and after they were taken away we found below one of them a part of a box-shaped object with serpents adorning its sides. Some of the bricks in this

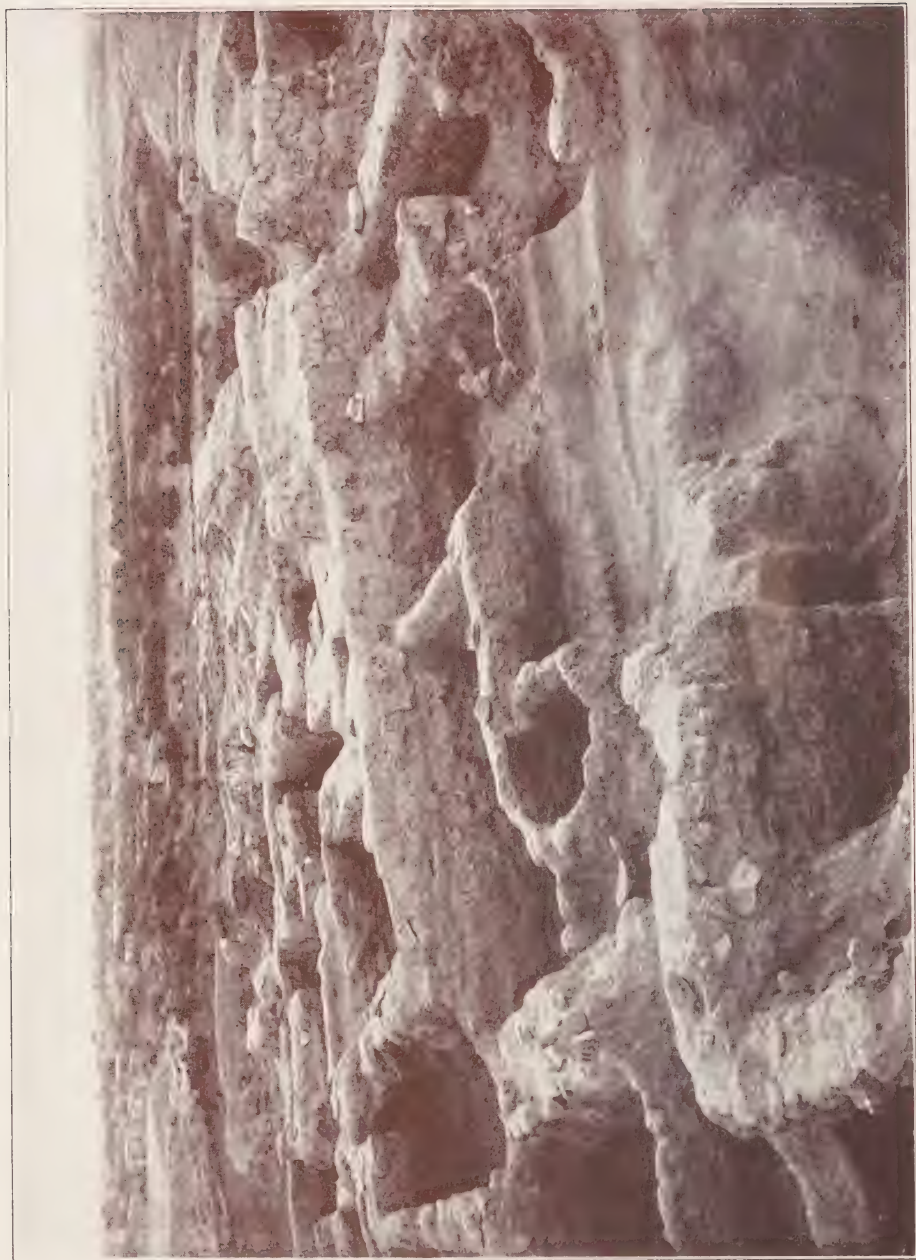


Fragment of lentoid flask with lug handles and a spoon-shaped extension on its top. Pottery colander. Vth city level.

temple had large signs imprinted on them while still wet. One sign was like a circle with a bar across it, another like a shepherd's crook, another is a diagonal line, another like a capital X having two parallel perpendicular strokes within one of its angles, and still another brick has a sign like a Greek capital *pi* (Π) placed with its open end towards the centre of an X. Meanwhile work was continued to the east of the great Dagon temple where many rooms were cleared out, providing us with a quantity of pottery, loom weights, and so on. The pottery includes fragments of a large eight handled pot and of a four handled jar, lentoid flasks, of which some recall those found with certain anthropoid sarcophagi in the cemetery (to be referred to later on), while another has lug handles and a spoon shaped extension on its top. The brick walls of the period of Rameses II are as a rule very solid and are built upon a foundation of stones which are often very large and which sometimes occupy a space considerably greater than the width of the wall. Some walls had wooden beams or planks bearing upon the stones to make the foundations level. The wood has, in process of time, turned black and may be easily, though erroneously, supposed to have been burnt. In other cases the walls rest upon beams alone, without any layer of stones below, or even upon the débris of the tell itself.

IVTH CITY LEVEL

During the early part of the period represented by the IVth city level, that is to say until the death of Rameses III in 1225 B.C., Beth-Shan was still held by the Egyptians, whose mercenary troops, mostly of Ægean-Anatolian origin, under Egyptian officers, had been in occupation of the place ever since the time of Seti I. A statue of Rameses III was found on the tell in 1923. Soon after the death of this king, the Philistines, a people also of Ægean-Anatolian origin, took possession of the fort, doubtless amalgamating with their kinsmen, the old mercenaries, who were already there, and defeated Saul of Israel upon Mount Gilboa, to the southwest of the site, and placed his head in the Dagon temple and his armour in the "house of Ashtaroth." The Philistines were driven out from the fort about 1000 B.C. by King David, when the Israelites took over the place. Beth-Shan was subsequently plundered by King Sheshonk I of Egypt in 926 B.C., and was under Assyrian occupation from the Eighth Century to 626 B.C., the time of the Scythian invasion.

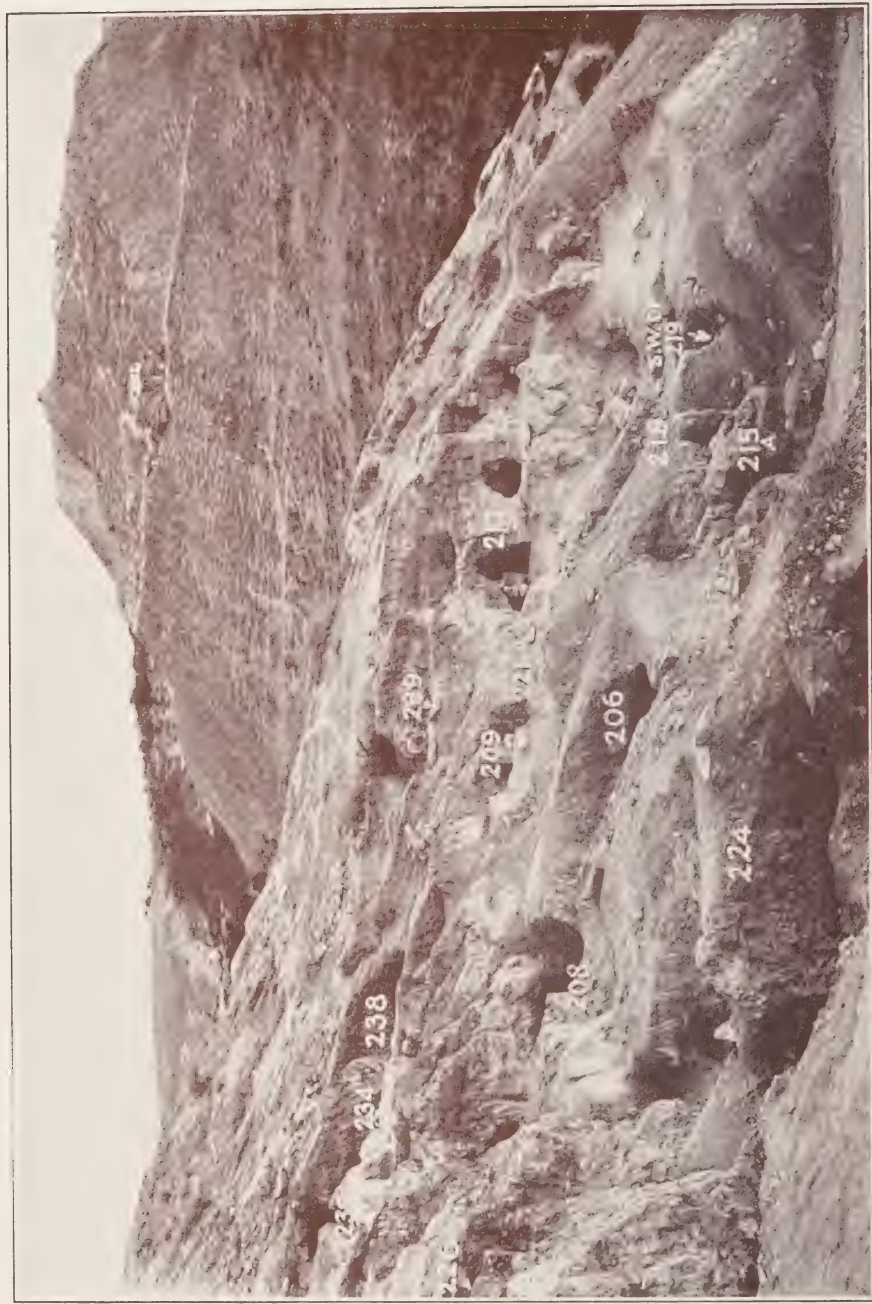


Walls of the IVth city level on tell, looking south.

One of the remains of the Assyrian occupation consists of a magnificent onyx cylinder seal, dating to the older Cassite Dynasty of Babylon, which was found on the tell last season. The Scythians, who were Indo-Europeans from the far north, entered Western Asia, overrunning Assyria, Palestine, etc. In much later times Beth-Shan was known as Scythopolis, or "City of the Scythians," but whether the first part of this name refers to the Scythian invasion or is a corruption of some word other than Scythian, is not known. Nebuchadnezzar invaded Palestine and Syria in 600 B.C., but in 538 B.C. the New Babylonian Empire which he had founded, came to an end, for in this year Cyrus, the Persian, captured Babylon and founded the Old Persian Empire. Alexander the Great put an end to the latter empire in 332 B.C., and from 301 B.C. onwards Palestine was under the rule of the Ptolemies. The IVth city level of Beth-Shan came to an end with the advent of the Ptolemies. Some of the earlier walls of the above level are of a soft reddish brick, built upon a foundation of smallish stones, while others are comprised of rubble covered with plaster. Owing to the way in which the whole level has been successively destroyed and rebuilt, it is impossible to say exactly to what period any given room belongs; and further, as might be expected, unbroken objects are very rarely discovered in it. We found, however, in addition to the above mentioned cylinder seal, two glass scaraboids; a number of beads and of unpierced pebbles which were probably meant to be turned into beads; large bronze fibula; fragments of colanders and of a jar with a false spout. Beneath the floor of one room a jug was discovered which contained remains which may prove to be the bones of a child. If so, we have here further evidence of the old Palestinian custom of burying infants under the floors of dwellings. Both the jug and its contents have been sent to the University Museum, where the latter will be identified.

IIID CITY LEVEL

The IIId city level represents the Hellenistic, Jewish and Roman periods. From 301-198 B.C. Palestine remained, with short interruptions, under the rule of the Ptolemies. It then came under the domination of the Seleucidæ. These were kings of Syria who took their name from Seleucus, a general of Alexander the Great, who subsequently became the founder of the Syrian monarchy. About the third century B.C. a large stone temple, perhaps dedicated

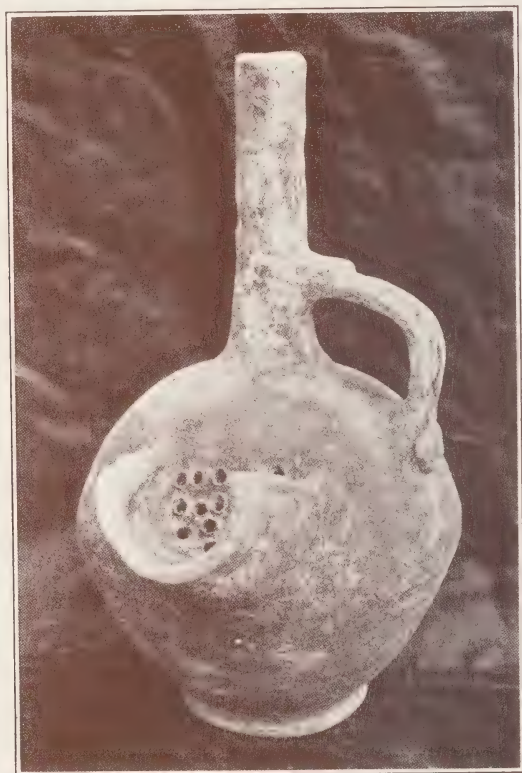


General view of part of the cemetery excavated in the 1926 season. In the background is Tell Hosi, between which and the cemetery is the valley of the River Jalud. The numbers indicate the tombs. Looking southeast.



General view of the northwestern part of the cemetery excavated during the 1976 season. Looking northwest.

to Astarte-Atargatis, or to Dionysos, was erected on the tell. It was 72 feet wide and 121 feet long, and its entrance was at the west. In a reservoir to the south of it was found the head of a large marble statue, and also the fingers of a marble colossus. Beth-Shan yielded to John Hyrcanus, the prince and high priest of the Jews, in 107 B.C., and remained under Jewish rule until the arrival of Pompey in 64 B.C. Thus commenced the Roman period, which may be said to have lasted



Pot with filter spout found in anthropoid burial.
This seems to have Cypriote affinities.

until 330 A.D., when the Byzantine (or Eastern Roman Christian) period was inaugurated by Constantine the Great. With the conclusion of the Roman era the IIIId city level came to an end.

During the whole of this time, and also during the time equivalent to the IIId and Ist levels, dressed stone was used for all the buildings on the tell; the buildings in the previous levels were invariably made of brick.

Our excavations in the IIIId level, during the last season, were carried out on the southeast part of the tell, where many rooms,



Tomb of Græco-Roman period reused in Christian times. In the foreground is the end of the stairway leading into the hall of the tomb. The *loculi* or oblong chambers into which the bodies were placed, will be seen in the background. The roof of the tomb had collapsed in ancient times.

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undoubtedly belonging to Græco-Roman times, were excavated. One of them had a floor consisting of a cement pavement. Hellenistic lamps and pottery (black varnished or red glazed) were found below them when they were cleared away; and the pottery immediately under the cement floor, while lacking any clearly Hellenistic features, showed no specimens of the ribbed ware which becomes common in the late Roman and Byzantine times. In one of these Græco-Roman rooms was found the toe of a large bronze statue. Other objects of a definitely Hellenistic character comprised a part of a female figurine and a fragment of a plate painted with a wreath of ivy.

IId CITY LEVEL

The IId city level is purely Byzantine, and it lasted for about three centuries, coming to an end in 636 A.D. with the conquest of the Arabs. Very important Byzantine remains have already been found on the tell, chiefly during the years 1921-1923, and include two churches, one of basilica form (IVth century A.D.), and one of rotunda form (VIth century A.D.), particulars of which will be seen in former numbers of THE MUSEUM JOURNAL. The chief work carried out in 1926 in this level was the partial removal of three huge Byzantine stone walls, enclosing on the north, south and east sides, the area adjoining the above-mentioned Græco-Roman rooms. The northern wall was found to have its foundations, for a considerable stretch, running at a very low level (about the VIth city floor level). It seems possible that the wall was originally intended to form part of a reservoir. Several stones from this wall, like stones from other walls of the same age, have certain letters of the Greek alphabet marked on them. They are merely masons' marks.

Nothing can here be said about the Ist city level, as practically the whole of the Arabic stratum was cleared away from the tell in 1923.

RECENT FINDS IN THE CEMETERY

The great cemetery of Beth-Shan, which is undoubtedly one of the largest in Palestine, extends along the sloping northern side of the River Jalud. It contains innumerable graves of all periods from the Bronze Age to the Byzantine era, about forty-four examples of which have been cleared out during the last season with most satisfactory results. As a rule the very oldest graves in the cemetery are found at the top of the slope, while those of the other periods



Remains of Christian tomb with tomb door in position. The roof had collapsed in ancient times.

are cut indiscriminately over the whole of the valley side. The graves very frequently break into one another, causing, in many cases, a great disturbance of the original burial equipment. It is thus a common occurrence to find in a single tomb objects belonging, say, to the time of the anthropoid burials and to the Byzantine era, periods which are separated from one another by an interval of 1500 years.

MIDDLE CANAANITE PERIOD BURIALS

The earliest type of bronze age grave we have just discovered (about the beginning of the Middle Canaanite Period, 2000-1600 B.C.) consists of a roughly circular subterranean chamber with a small passage leading to it, the entrance of which is blocked by a single large stone. In a good many instances, owing to the poor nature of the rock, the roof has collapsed, thus destroying the body and some of the pottery, if such had not already been destroyed by the ancient tomb robbers. The bodies appear to have been laid on their sides in a crouching position, no systematic orientation of the corpse being carried out. In one of these graves were a large ledge handled pot, a single handled jug, an open (Canaanite) pottery lamp with four spouts, and so on. From certain of these interments, including that mentioned above, have been recovered long pointed javelin heads of bronze. No articles of jewellery or adornment whatever have come from these graves, the people connected with which must have been in a somewhat low stage of culture. It is interesting to observe that no objects which could be ascribed to a foreign source were found with the bodies.

POTTERY ANTHROPOID BURIALS

The next in order of date of the graves found by us are those containing large pottery anthropoid sarcophagi of the so-called "slipper" type. In contrast to the roughly round shape of the earliest bronze age tombs, the "anthropoid" tombs are roughly rectangular. One such tomb consists of a large underground hall with a low entrance at the bottom of a shaft which leads from the ground surface above. The hall has a rectangular recess for a sarcophagus to the north, east and west; the recesses on the east and west are raised a step above the floor level of the hall. In this particular tomb at least three sarcophagi were found, one belonging to a woman. Practically no jewellery was found with them, but it may be worth

drawing attention to the fact that the tomb contained a flat bottomed jar having ledge handles of a peculiar form, the clay when still wet being folded over in three flaps so as to make a semicircular handle. Jars of this type have been found on so many other occasions in



Cover of Anthropoid Sarcophagus found in a tomb.

close connection with anthropoid burials that it seems almost impossible to reject the conclusion that they are contemporary with them. Such jars, however, are usually regarded as belonging to the earliest bronze age.

All the sarcophagi in these tombs are cylindrical in shape, and taper down towards the base, their maximum diameter being about where the shoulders of the corpse would be when placed in them. They all have moveable lids upon which are modelled in high relief the features of the deceased with crossed arms and hands. At the base of some of them the feet have even been represented, but this



Askos (wine-skin shaped vessel) in form of a ram. Found in a late burial.

characteristic is very rare. One of the sarcophagi has just been sent to the University Museum.

Our evidence certainly seems to indicate that these interesting burials are mostly those of Egyptian mercenaries who came from the seacoasts and islands of the eastern Mediterranean. They date from about the time of Seti I, or Rameses II, to the time of Rameses III, or perhaps even slightly later. Sarcophagi very similar to ours have been found in Egypt at Tell el-Yahudiyeh (Mound of the

Jewess), at Tell Nebesheh near Lake Menzaleh, at Saft el-Henneh to the east of Zagazig in the Delta, and at Suwa to the south of the latter town. The Egyptian examples date, according to their discoverers, from the XVIIIth to the XXVIth Dynasty (c. 600 B.C.), the earliest being of the time of Thothmes III (1501-1447 B.C.), and nearly all, like ours, have Mediterranean (including Ægean and Cypriote) pottery and other objects associated with them.

Among the things that have been unearthed with the Beth-Shan anthropoid sarcophagi may be mentioned "stirrup vases" or Bugelkannen, lentoid flasks, and other Mediterranean pottery. A most interesting object was a gold foil mouthplate, lozenge shaped, with a hole at each end, which was originally tied over the mouth of the body before it was laid in the sarcophagus. Similar mouthpieces have been found in Cyprus and in various countries directly affected by the Ægean civilization. Other associated objects are Canaanite pottery lamps, some with spouts for four wicks; spindle whorls; small bead-spreaders inscribed with figures of Egyptian deities; part of a beautifully made onyx figure of the god Bes; pendants and beads of carnelian, steatite and onyx; spearheads and coiled bangles of bronze; earrings of bronze, silver and gold; plain finger rings of bronze and silver; scarabs, some mounted in gold, ranging in date from the Hyksos period to the time of Rameses II (one bears the name of Thothmes III); and a bronze ring with a scaraboid attached to it. Certain of the burials even had Egyptian *ushebt*i figures (i.e., models of field workers for helping the deceased in the other world) with them, which fact, although very interesting, is not surprising when we consider that the religion of the mercenaries must have been strongly influenced by that of their Egyptian officers. As a matter of fact, the presence of the sacred Nilotic amulets and figurines shows that whatever deities of their own the mercenaries may have worshipped, they probably also revered some of the gods of the Pharaohs. Further, it was quite an easy matter for them to identify with Hathor or Isis of Egypt (and incidentally, with Ashtoreth of Palestine) their own great Mother Goddess, who was universally worshipped over the whole of the regions of the Ægean and the northern parts of the eastern Mediterranean.

GRÆCO-ROMAN AND BYZANTINE BURIALS

Very important objects of the Græco-Roman and Byzantine ages were found in the cemetery last season. The Græco-Roman

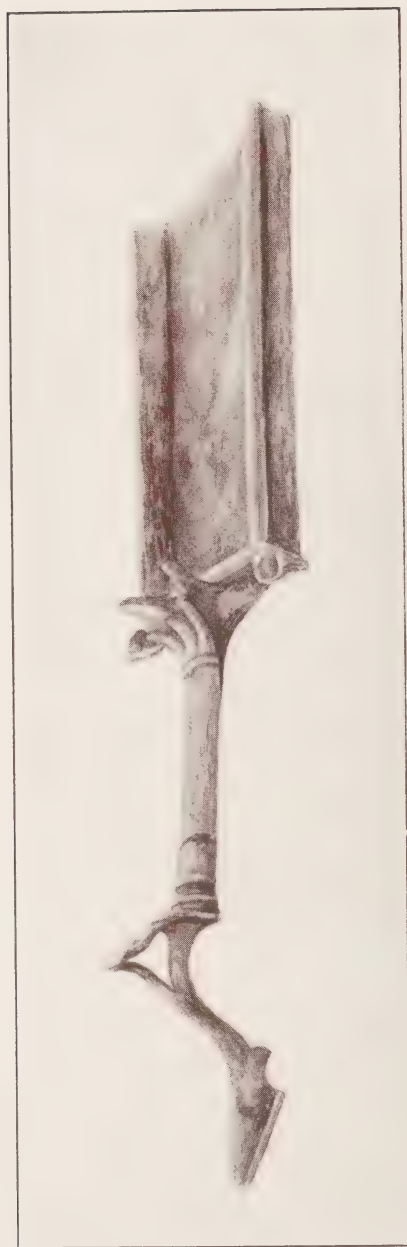


Statuette representing, probably, the goddess Isis and her son, Horus, or perhaps, the Virgin and Child. From a late tomb.

tombs are usually of the *kokim* or *loculus* type, which consists of a rectangular rock cut hall with *loculi*, or oblong chambers, cut in its sides. Into these were deposited either the bodies alone, or else the sarcophagi containing them, the feet or the head being placed towards the hall. Often after the side chambers were filled up, burials were actually made in the hall itself, sometimes in sarcophagi and sometimes in trough-like graves, excavated in the floor and covered with slabs. In other cases roofed in pits are actually found in the floor of the *loculus* itself. Children as a rule were buried in small slots made in the hall floor or in pottery boxes with sliding lids. The roof of the hall is usually vaulted, and, like the walls, covered with a thin layer of white plaster. Each tomb has a flight of steps leading down into it, with a stone door near the top step. No triclinium, or couch used in conjunction with the funerary repasts, such as is to be seen in the cemeteries at Alexandria and elsewhere, has been found in our tombs of the Roman era. Certain of the Græco-Roman tombs were reused in Byzantine times. From one such tomb came a small bronze pendant in the form of a Maltese cross. Another type of Hellenistic tomb consists of plain graves excavated in the rock, each of dimensions sufficient for a single burial. Some of these are cut in a ledge in the hillside. A flight of rough steps was found in the face of the rock leading down to this particular ledge.

The Christian (Byzantine) tombs as a rule consist of a small vaulted rock-cut hall with vaulted graves on three sides of it. The graves, which are divided from the hall by means of small walls of stone covered with plaster, usually have a rock headrest at one end of them. Like those of the Græco-Roman age, the tombs of this age have a flight of steps and a stone door. A door from one Christian tomb provided an unusual feature, in that it bore, in an inscription in Greek characters, the name "Apolinarius," which presumably indicates the occupant of the sepulchre. From the same tomb came a basalt lock—a device for fixing the bolt which closed the door on the inside. A certain Christian tomb had crosses in red paint, varying from three to four, over each grave.

The objects found in the graves of the Græco-Roman and Byzantine periods are very interesting and important. Among them may be mentioned alabaster vessels; a good quantity of pottery of all shapes, some of it being of the fine red polished type; many nice glass vessels, including *lacrymateria*, or tear bottles; *askoi* (i.e., wine-skin shaped vessels), one in the form of a ram; pottery statu-



Roman incense shovel with handle in shape of an animal's leg and hoof. Found in a Roman tomb.

ettes, one probably representing the goddess Isis with her child Horus; part of a statuette showing a rider on a horse; very many pottery lamps; glass mirrors set in limestone frames; sistra, bells, buckles and knives, all of bronze; keys of iron; a bronze lancet; a small bronze jug of good design; bronze tools; Byzantine bronze finger rings, some having crosses on their bezels; bangles and mirrors of bronze; a quantity of glass beads of various colours and forms; decorated bone hairpins, and so on. A very interesting find was a



Stone door, with pivots, from a Christian tomb. It bears the name, Apolinarius, in Greek characters.

cubical pottery die, marked like our modern dice, with points numbering from one to six. A magnificent incense shovel in bronze, with a handle in the shape of an animal's leg and hoof, was really one of the best objects of Roman times ever found in the cemetery. With it was a fragment of a bronze sistrum. In certain tombs crudely made limestone portrait busts, some bearing the name of the deceased, have been brought to light.

The excavations carried out at Beth-Shan by The University Museum have yielded treasures of the very greatest value, not only for the history of Beth-Shan but also for that of Palestine in general.



Jade Figurines of Mixtec type, Mexico.

NATIVE AMERICAN JADES

BY DR. J. ALDEN MASON

JADE, that exquisite stone of emerald hue, translucent and of almost gem-like hardness, has ever been sought, prized and almost worshipped by men in all ages. Called by the Chinese *yu* or *yu-chi*, "gem" or "jewel stone," it occupied the highest place as a jewel, and was considered the symbol of virtue and revered as "the quintessence of heaven and earth."

Yet not even in China was jade prized so highly as in pre-Columbian Mexico. When the messengers from Montezuma paid their first visit to the conqueror Cortés shortly after his landing on the shores of the Gulf of Mexico, bearing to him the magnificent presents which the great Aztec war chief sent to one whom he believed to be the great god Quetzalcoatl returned again, the most precious of all the gifts, in the eyes of the donors, were four beautiful *chalchihuites*. Bernal Díaz, the doughty warrior who fought through the campaigns of conquest under Cortés and who, in his old age, disgusted with what he claimed were misstatements regarding the events of those memorable years, wrote one of the most interesting, detailed and circumstantial histories of the conquest of Mexico which we possess, reports,¹ "Regarding the four chalchihuitls they (the messengers) observed, that those were intended as a present to our emperor, as each of them was worth more than a load of gold." Again Díaz reports that after the Spanish had penetrated to Tenochtitlan, the present City of Mexico, and practically made a prisoner of Motecusuma, as Díaz spells the name, the dejected chief, under duress, presented to Cortés the hoard of gold ornaments, jewels and other wealth which had been accumulated by his predecessors. Apologizing for the meanness of the gift, which, however, to the Spaniards was undreamed of treasure, he continued,² "To this I will also add a few chalchihuis, of such enormous value that I would not consent to give them to any one save to such a powerful emperor as yours: each of these stones are worth two loads of gold."

¹ Bernal Díaz del Castillo. *Historia verdadera de la conquista de la Nueva-España*; cap. 40. Lockhart's translation: *The Memoirs of the Conquistador Bernal Díaz del Castillo*; London, 1844; vol. 1, p. 93.

² *Id.*, Cap. 104; vol. 1, p. 278.

The extreme value placed upon *chalchihuitl* is patent from the above excerpts. The Spanish could not understand the Mexican evaluation of *chalchihuitl* as more precious than gold, nor did they appreciate the sacrifice of Montezuma in bestowing these carved stones upon them. Bernal Díaz¹ describes the *chalchihuitl* as "a species of green stone of uncommon value, which are held in higher estimation with them than the *smaragdus* with us." By "*the smaragdus*" he probably meant the emerald. Other writers mention the great esteem in which the *chalchihuitl* was held in Mexico and note many facts and beliefs connected with it. Thus Sahagún² remarks that four Mexican deities were the especial patrons of lapidaries. Quetzalcoatl, one of the major gods, taught "particularly the art of cutting precious stones, such as *chalchihuites*, which are green stones, much esteemed, and of great value."³ Quetzalcoatl



Aztec hieroglyphs denoting *chalchihuitl*.

himself is said to have been begotten by a *chalchihuitl* which his mother, Chimalma, placed in her bosom.⁴ Upon the death of a chief "They put in his mouth a fine stone resembling emerald, which they call *chalchihuitl*, and which, they say, they place as a heart."⁵

The reader has probably deduced already, from the change in topic from jade to *chalchihuitl*, that the latter is, or was, the Aztec name for the former. Such deduction is probably correct and is generally accepted today, but is not absolutely certain and was formerly the cause of some discussion. The probability is that the word *chalchihuitl* was a generic term applied to any hard, translucent, greenish stone capable of being worked and referred not only to jadeite and nephrite but also to chloromelanite, quartzite, amazon-stone and similar stones, and possibly even to the softer stones agalmatolite, steatite and serpentine. The distinction between

¹ Id., Cap. 40; vol. 1, p. 93.

² P. Bernadino de Sahagún. *Historia general de las cosas de Nueva España*; Lib. 9, cap. 17. Jourdanet's and Simeon's translation: *Histoire générale des choses de la Nouvelle-Espagne*; Paris, 1880; p. 585.

³ Juan de Torquemada. *Veinte y un libros rituales y monarchia indiana*; lib. 6, cap. 24; vol. 1, p. 48.

⁴ E. G. Squier. *Observations on a Collection of Chalchihuitls from Central America*; *Annals Lyceum of Natural History*; vol. 9, N. Y., 1870; p. 247.

⁵ Torquemada, lib. 13, cap. 45; vol. 2, p. 521.

turquoise and chalchihuitl has been even more of a problem, the present consensus of opinion being that in the north of Mexico and in New Mexico where turquoise is mined it also was known as chalchihuitl, but in the south where it is not native it was known as *xihuitl*.¹ The Spanish were familiar with turquoise and were able to identify that gem by name, but jade was apparently unknown in Spain, or at least to the ordinary Spaniard, and he could not refer to it by other than the native term. So it was with many or most of the native natural species of Mexico, animal, vegetable and mineral, but in most cases these are still known by their native names and have since been scientifically studied and identified; jade is no longer worked in Mexico and the name chalchihuitl has gone out of use.

The fact that jade has never been reported as found in situ, to scientific notice, from Mexico and Central America is one of the most surprising and inexplicable phases of the question and would certainly indicate that chalchihuitl was another mineral were it not that many worked objects of jade, carved in the style of art and motives native to their respective localities, have been found from southern Mexico to Colombia. This fact stimulated great discussion in archeological circles of a generation ago and the "nephrite problem" was one of great importance in the earlier days of our science.² For, according to the theory of one school, all the jade had been imported from the Orient, eastern Asia, which hypothesis explained its great value in comparison with gold, and its present apparent absence in middle America. This theory has since been universally discarded, having been overthrown mainly by the discovery of two facts. It was first shown that American jades are of a mineralogical composition distinct from those of the Asiatic jades.³ Later, Mrs. Nuttall,⁴ by a study of the tribute rolls of Montezuma, generally known as the Mendoza Codex, the original of which is still preserved in the Bodleian Library at Oxford University,⁵ demonstrated that tribute of beads and similar ornaments made of chalchihuitl was paid to Montezuma, as chief of the Aztec confederacy, by many towns in the southeastern states of Mexico: Vera Cruz, Puebla, Guerrero, Oaxaca and Chiapas. These payments of tribute originated, of

¹ George F. Kunz. New Observations on the Occurrences of Precious Stones of Archeological Interest in America. 15th International Congress of Americanists; Quebec, 1906; pp. 289-299.

² Heinrich Fischer. Nephrit und Jadeite . . . ; Stuttgart, 1875.

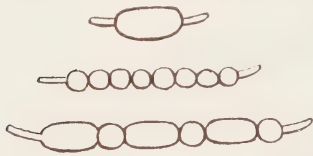
³ A. B. Meyer. The Nephrite Question. American Anthropologist, 1, 1888, pp. 231-242.

⁴ Zelia Nuttall. Chalchihuitl in Ancient Mexico. Am. Anth. (n. s.) 3, 1901, pp. 227-238.

⁵ Codex Mendoza. In Kingsborough's Mexican Antiquities, London, 1848, vol. 1.

course, from the military conquest of territory by the allied cities of the Valley of Mexico.

We have one circumstantial account of the conquest of the country around Tehuantepec by the Aztec leader Ahuizotl in 1497.¹ Defeated in battle and at the mercy of their warlike foes, who more than anything else desired prisoners of war to sacrifice to their blood-thirsty gods, the elders and women advanced and cried, "Valiant lords of Mexico, cease your fury . . . let us speak. We will pay you tribute of all that is produced and yielded on these coasts, which will be chalchihuitl of all kinds and shades, other small precious stones named teoxihuitl (lit. "divine turquoise") for inlaying in precious objects, and much gold, besides the most exquisite plumage . . . " The order in which these tributes are mentioned probably affords a proper conception of the respective values in which they were held—jade first, turquoise second, gold third.



Representations of Necklaces of
Jade Beads, from Montezuma's
Tribute Roll.

This offer of tribute, together with the definiteness of the region from which jade was paid as tribute, indicates clearly that jade must have been a natural product of those districts. These again are the very places in which jade objects are found today in the greatest abundance in archeological excavations, generally on the Pacific Coast, from Guerrero in southern Mexico to Costa Rica. It is probable that, in their search for the precious stone, the aboriginal populations had practically exhausted the available supply, both of boulders and of exposed seams. Doubtless, in future mining or grading operations, some of these veins will be bared.

Although jade, to us, is primarily associated with China and the Orient, yet it was from Mexico that the name "jade," now used alike in English, German, French and Spanish, originally was adopted. Unfamiliar with the stone and informed of its supposed marvellous curative properties, the Conquistadores spoke of it as "piedra de ijada" or "colic stone" (*ijada*, "loin" or "flank"). The word has, of course, come to us through the French modification of *ijada*: *jade*. The same belief in the therapeutic value of jade is found in the name for one of its varieties, nephrite, from Greek through the Latin *lapis nephriticus*, "kidney stone."

¹ Fernando de Alvarado Tezozomoc. *Crónica Mexicana*; cap. 76. In Kingsborough's *Mexican Antiquities*, vol. 9, p. 130.

Two stones, rather distinct mineralogically but very similar in appearance, jadeite and nephrite, are included under the name jade. Nephrite is a calcium-magnesium silicate with parallel felted fibers somewhat like asbestos. Mineralogists term it an amphibole. Nephrite has been found native in Alaska, British Columbia and Brazil, and the majority of the jades from these regions, as well as from Venezuela, Colombia and Central America, are nephrites. Jadeite, according to the mineralogists, is an aluminium-sodium silicate and a pyroxene rather than an amphibole. Apparently it is jadeite which was known as *chalchihuitl*, which is found so frequently in southern Mexico and Guatemala and which is the main topic of our discussion today.

Sahagún,¹ in one of the chapters of his exhaustive work, treats of the precious stones found in Mexico, most of which, referring to the several varieties of jade, turquoise, emerald and similar stones, we need not consider here.

Chalchihuitl, he says, was found as pebbles and boulders and was not quarried. The scarcity of the material in Aztec days may be realized from his account of the methods of securing it. According to him, certain persons were experts, trained in the art of discovering such stones on or beneath the surface. Stationing himself at a favorable location at sunrise, the expert would scan the neighborhood and endeavor to descry the faint emanation which, like a dim haze, arose from the stones at such times. Another sign, supposed to be infallible, was the patch of green verdure which overlay every boulder of jade. Needless to say, the cynical, incredulous modern mineralogist discredits both of these indicative phenomena.

The jades are among the hardest of stones, having a grade of about 6 on the scale, and, on account of their tough, dense, fibrous nature, are exceedingly difficult to work. Unlike the rocks of flinty nature and the glassy obsidians, they cannot be chipped or flaked by percussion or pressure, and their shaping and carving was achieved only after boundless expenditure of time, sand and "elbow grease." It should occasion no surprise, then, that jade objects were so highly valued in Mexico and were worn only by persons of rank and importance. Add to their intrinsic beauty the great rarity of the material and the incredible amount of skilled labor needed to engrave them without the aid of metal tools, and one can understand why only the powerful could command the requisite man-power and wealth.

¹ Sahagún; lib. 11, cap. 8; p. 771.

Sahagún devotes a chapter¹ to the jeweller's art among the ancient Mexicans, a portion of which treats of the working of chalchihuitl. According to him, the hardest stones were shaped by means of emery and an instrument of tempered copper, carved with flint implements, drilled with hollow tubes of copper and then polished. (The popular belief in the "lost art" of tempering copper is one of the most immortal and invulnerable myths of American archeology. No copper or bronze objects are known from ancient America of a greater degree of hardness than can be secured by such simple methods as hammering and annealing.)

Rather more can be learned of the jeweller's art in Mexico, however, by studying the actual jade specimens in museum collections. These consist, in the Mexican and Mayan regions at least, mainly of beads and amulets. The beads are generally plain and undecorated, regular in shape, spherical, cylindrical or barrel-shaped,



Aztec Drawing of a Jeweller.

and drilled for stringing. The amulets are sometimes carved in the full round, but more often in low relief on one side of a rather thin slab of jade, the back being plain. These amulets also invariably have suspension holes, but these are generally two short drillings meeting at an angle. Axes, celts and other objects of jade are less usual.

One of the principal methods of working jade was by sawing, this being the means by which the piece of raw stone was first roughly shaped. This is especially true of the thin slabs of jade from which the relief amulets were made, these frequently showing a perfectly straight, flat back except in the center where there is a slightly raised ridge with a rough surface. Obviously they were sawn from both sides until only a thin septum remained which was then broken through. The labor was accomplished mainly by means of a hard sand or emery abrasive, the actual saw being probably a cord made of some one of the stiff Mexican agave fibers, or possibly a leather thong, though thin slabs of tough stone may also have been employed. The "saw," likely enough, broke every few minutes after having made only a few scratches on the adamantine surface, but *labor*

¹ Sahagún, lib. 9, cap. 17; pp. 585-587. The portion of the chapter referring to the actual methods employed was omitted from the Spanish and French translations of the Aztec original on the ground that it had no relationship to faith and morals. The section was later published by the late Eduard Seler as "L'orfèvrerie des anciens Mexicains et leur art de travailler la pierre et de faire des ornements en plumes" and may be found in his *Gesammelte Abhandlungen*, vol. 2, pp. 620-663.

omnia vincit and, given infinite time and patience, the task could be done even with such tools.

The methods of carving the figure or relief are not well known, but most probably it was done, as Sahagún says, mainly with flint tools, though many other materials, such as implements of wood, bone or copper, working in sand abrasive, were doubtless employed. The engraving of curved lines on such a material, practically as hard as the tools employed, was a task of the greatest difficulty and was avoided, straight incised lines being used whenever possible. In all places there was doubtless a progressive development throughout the history of jade working, both in art and in technique, but this topic has not yet been well studied. In most regions the types tended to become standardized and stylized so that it is generally not difficult to determine the general culture from which a jade ornament comes, though the period is not so obvious. The discovery of easier technical methods tended, naturally, to increase this stylism. Thus the use of the tubular drill for perforating the specimen for suspension soon suggested its use in making the incised circles which generally represent the ear ornaments, and from this point the discovery was soon made that by turning the drill at an angle, semicircles and other arcs could be quickly made. This discovery was then applied to the making of eyes and eyebrows, ears, mouth, nostrils and other facial features and ornaments. In certain regions, such as the Mixtec, this process was utilized to such an extent that the figures became stylized and conventionalized almost beyond recognition.

The next step in the manufacture of jade ornaments was the drilling of suspension holes. This was generally done, as Sahagún reports, with a hollow drill, probably either of copper or bone, working in sand. In one Mexican stone specimen which has been reported upon,¹ a fragment of such a drill, made of the leg bone of a large bird, was discovered in the shaft. Smaller holes were probably made by a solid drill. The length of some of these drillings is remarkable, many specimens being drilled from end to end. A jade bead in the possession of the Museum (Fig. 8 on page 70), although measuring only three eighths of an inch in diameter, has been drilled throughout its length of four and three quarters inches. The difficulty of such hand drilling without the use of a lathe can be appreciated only by a mechanic. Such lengthy holes are drilled from both ends, the per-

¹ William H. Holmes. Archeological Studies among the Ancient Cities of Mexico. Anthropological Series, Field Columbian Museum, 1895. Vol. 1, p. 307.



American Jade Amulets.

forations meeting in the center, and the same process is utilized in many of the smaller specimens, the suspension holes being drilled from two adjacent sides, the drillings meeting at an angle beneath the surface. In few instances was the drilling carried straight through from side to side. Since in practically every case the drill used tapered considerably, the orifice at the point of entry is rather larger than that at the terminus.

Most of the jade objects found in museums today bear a high polish, or at any rate evidences of having once been highly polished. The process of polishing is not well known, but Sahagún gives the brief note that they were fixed in wooden holders and polished with bamboo (probably a species of reed).

The jade ornaments from the various cultures of middle America, from Venezuela and Colombia, Panama and Costa Rica, Guatemala and southern Mexico, can all be distinguished by their character of art, but our present discussion will be limited to the latter region, Guatemala and Mexico. Here three main types are found, from the regions which were probably the richest in jade. Aztec jades are not common, inasmuch as the raw material was secured only as tribute, but jades from, and of artistic styles characteristic of, the Mixtec and Zapotec tribes of Oaxaca, Guerrero and Chiapas and of the Mayan tribes of highland Guatemala and Chiapas are well known.

Most of the jades found in museums are of uncertain proveniences and lacking in data, and the best of those in the University Museum are no exception to this rule. Fifteen of the best specimens of jade, or of stones closely resembling jade—for none has been accurately analyzed—which are in the University Museum are shown on pages 46, 54 and 59. The provenience of none is known but the style of art, in the majority of cases, permits the culture to be assigned with a reasonable degree of certainty.

The four figures shown on page 46 are very definitely of the type known as Mixtec and can be ascribed with practical certainty to the region known as the Mixteca in eastern Guerrero and western Oaxaca in southern Mexico. Small figurines of this nature are the most typical Mixtecan objects, but only a small proportion of them are made of jade, the majority being of marble or other stones. The art and technique, however, are apparently identical. The "quantity output" of these figurines naturally resulted in a decided stylization of art and standardization of technique which may be observed perfectly in the specimens illustrated. Thus in the largest of these

specimens (No. 5909), Fig. 4, made of a highly polished, beautiful green jade, every incised element is either a straight line, or a circle or arc of a circle. Of the latter type, made with a tubular drill, are the eyes, pupils, nostrils and ears, while arms, legs, fingers and toes and all other elements were made by the sawing process, probably by a sharp edged stone working in sand. It is obvious that these technical labor-saving devices denote a late stage in the development of the art of this culture. As in most examples of stylized primitive art, the parts of the figure are decidedly out of natural proportion, the head being unduly large, the forearms short and close against the body, and the legs vestigial and flexed close against the body. Suspension holes are drilled in the back.

The shorter angular specimen (No. 5910), Fig. 3, is of similar technique but bears one or two curvilinear lines which were apparently graved with a sharp point, though in all other respects it resembles the preceding figure. Figure 2 (No. 5907) is very similar to the others except in shape. The proportions of all these figurines are conditioned and limited by the shape of the original piece of jade, and since the present specimen was carved from a slightly ovoid pebble, the legs and lower body are unduly constricted and vestigial. As in the preceding instances, the major part of the carving was performed by means of the saw and the tubular drill. The hair is represented by a number of parallel incised lines and a row of small relief circles crosses the forehead like a coronet.

The last specimen (No. 5908), Fig. 1, is the most naturalistic, displays the least evidence of labor-saving processes and is presumably, therefore, the oldest in point of time. The use of the tubular drill is seen, indeed, in the corners of the eyes and the forehead decoration, and three biconical drilled perforations are found in the back, one, certainly, for suspension, the other two most probably for the attachment of ear ornaments to the figurine. The sawing technique was well utilized in making the groove between the legs, the fingers and toes and similar details but is not so omnipresent as in the other specimens.

But little is known of the Mixtec culture, and the use made of these figurines is quite problematical. They probably represented one of the gods of the aboriginal pantheon and presumably were carried on the person during life as talismans and protecting amulets and were buried with the deceased.

On page 54 are shown five jade figurines and ornaments of types quite different from those of the Mixtec. Their exact provenience is

likewise unknown, but they are not of so definite a type as the former and their assignment to their proper cultures is therefore a matter of much greater difficulty.

The first three specimens, Figs. 1, 2, 3, are of beautiful sea green or blue green jade or jade-like stones, very hard, slightly translucent and highly polished. The first (No. 5913) is a small head which was apparently broken from the body which is missing. The face is rather negroid in appearance, with broad flat nose and thick lips. (At this point I cannot forbear to sound a note of warning and caution against those who discover in aboriginal America traces of all the peoples of the globe because, forsooth, they find figurines, sculptures, carvings which, to *their* eyes, show the physiognomies of Negroes, Chinese, Egyptians or men of other races. Primitive art in America was, for the greater part, too non-pictorial, and our popular conceptions of racial characteristics are too inexact to permit any acceptable deductions to be made on such grounds.) The carving of the face, however, is quite admirable. The oval eyes are deeply incised and may have been filled originally with other materials. A drill, apparently a solid one, was employed to finish the corners of the eyes and mouth and to show the nostrils, but no trace of the tubular drill technique can be observed. A biconical drilled perforation extends through the head between the temples, by which the figurine was doubtless suspended.

The next specimen (No. 5919), Fig. 2, is made of a beautiful piece of sea green jade with the high polish of marble, the shape being roughly quadrilateral with rounded corners and slightly convex faces. The upper surface is carved and incised with a round human face in low relief. Here also the nose and mouth are flat and broad, but this is probably required by the lowness of the relief. A band of incised decoration, for the greater part of fine lines and now practically eroded, surrounds the face. As with the preceding specimen, it is pierced from side to side with biconical drillings for suspension. While the general effect of the art is Mexican, it is not a typical specimen.

The jade human figurine (No. 5906), Fig. 3, is a far more interesting specimen than appears at first glance, it belonging to a very unusual yet very characteristic Mexican type of Janus-faced deities.¹ The contrast, however, is in Mexico not so often between the anterior

¹ Eduard Seler. *Mischformen mexikanischer Gottheiten?* *Gesammelte Abhandlungen*, vol. 3, pp. 450-455.

and posterior aspects as between the right and left sides of the body and the face. In the present specimen the two phases of life and death are plainly portrayed on the two halves of the figurine, the mortuary side being to the reader's right. In addition to the kneeling pose which characterizes this aspect and which may be of esoteric significance, all of the most striking of the phenomena of death are shown, the deep vacant orbit, the fleshless nose and mouth with prominent teeth, the bare ribs and the sunken abdomen—a perfect semblance of Death. This aspect of the face, the peculiar hat and especially the kneeling posture, unusual in Mexico, are all characteristic of a class of pottery vessels from the Chimu culture of the northern coast of Peru. It is not impossible that this figurine may be of the same provenience. While the figurine is most probably a representation of a deity in two phases, or of twin deities, it bears no characteristic insignia which might identify it with any of the gods of the various American pantheons. The technique is excellent without a trace of either the tubular drill or of the sawing techniques which are so important in the late Mixtec figurines. It bears three drilled perforations, one at each elbow and one transversely through the neck, the latter being doubtless the main suspension orifice.

The foregoing three specimens are all of blue green stones, differing noticeably from the more typical pea green jades of the majority of the specimens. The art is also decidedly different, being largely naturalistic with slight stylization and conventionalization and little or no ornamentation and decoration. They doubtless belong to cultures distinct either in place or time from the other jades here described.

The last two specimens on page 54 may with some hesitation be assigned to the Zapotec civilization of the state of Oaxaca in southern Mexico. Figure 4 (No. 5902) is a thin pendant of elongated oval shape with convex obverse and concave reverse faces. The art is decidedly stiff, symmetrical and stylized, carved in low relief on the obverse face and representing a goddess with the usual disproportionately large head, small body and vestigial legs. Judging by the serrations on the lower edge of the pendant, which could hardly represent anything other than the toes, the goddess is kneeling. The four-fingered hands are pressed against the abdomen above which are large breasts with prominent nipples. The face is expressionless although the downturned mouth gives it a sinister cast; the ears are shown by the usual large circular ear ornament,



Jade Amulets of Mayan type.

and the headdress is elaborate. The twin small drilled holes are on one side edge so that the pendant must have hung on its side. The technique, like the art, gives evidence of an advanced stage of development, but the dependence on the saw and the tubular drill is not great, although the latter was almost certainly employed for the delineation of the ear ornaments and the breasts.

The final specimen (No. 5899) on page 54, Fig. 5, is a thick, heavy, roughly triangular ornament of pale green jade. Apparently the natural shape of the stone was utilized with as little modification as possible, but the entire surface, although retaining its natural irregularities, bears a high polish, possibly from long wear against clothing. Except for the carved upper surface it is the rudest of all the jades in the Museum collections. The art is distinctly Zapotecan, far more than that of the preceding specimen, though it also shows strong affinities with the Toltec art of the Valley of Mexico and the Mayan art of Guatemala. This is exclusively curvilinear, in strong contradistinction to the art of the Mixtec figurines, and consists mainly of scrolls and semicircles. The same artistic tendency is seen in the Zapotecan pottery.

The motive of this specimen is one of the greatest frequency in southern Mexican art, a human face emerging from between the jaws of a beast. The animals most often utilized in this connection are the snake and the jaguar, but both are so conventionalized in a convergent direction that it is frequently difficult to distinguish between them. The device probably has some esoteric or mythological background, but it was apparently favored for its terrifying aspect by warriors who saw in it an emblem of bravery and courage. In the present specimen the snake seems to be represented, though the identification is by no means certain. The double scroll beneath the chin of the human face can hardly be anything but the forked tongue of the serpent, but the nose with its scrolled nostrils at the top appears more feline. The eyes of the animal are recognizable, but the rest of the features are conventionalized practically beyond recognition.

Technically, most of the carving seems to have been done with graving tools, the absence of the saw being noticeable. The holes in the center of the ear ornaments were made by a tiny tubular drill, as a slight inner core is seen, and possibly the circles of these ornaments and of the human eyes were made by larger drills. Certain other arcs of circles give the impression of having been made by the inclined edge of a rotating tubular drill, but this is uncertain. The

amulet is pierced from side to side by conical drilled perforations which meet in the interior of the stone.

The finest, most typical, and best known of all the American jades are those of Mayan art from Guatemala and the contiguous lands, the southern Mexican states of Chiapas, Tabasco, Campeche and Yucatan; Salvador, Belize or British Honduras, and western Honduras. Of these, Campeche and Yucatan are limestone countries exclusively and could have produced no jade, but there, and throughout a large part of the Middle American region, jade ornaments of highland Mayan manufacture were carried in trade.

Specimens of Mayan jades are shown on the four plates on pages 59, 63, 66 and 70. The first of these on page 59 contains six jade amulets carved with the human face or form which are the finest American jades in the possession of the University Museum. Like the jades already described, however, they are of unknown provenience, although almost certainly of Mayan art and origin. The other three plates consist, with three exceptions, of jade objects from graves in the highlands of Guatemala, and are therefore of scientific reliability.

The most typical Mayan jades, such as those illustrated on page 59, are nearly unmistakable, although certain of the more regular, symmetrical and conventionalized figures approach closely the Zapotecan type. It is probable that the earliest art of the Mayan and the Zapotecan peoples was practically identical, but that at the terminus of their development, they had naturally diverged and become differentiated, each with its specific traits. The Maya art exemplified on the carved jades is readily recognizable as practically identical with Maya art elsewhere. The more formal, symmetrical, and regular faces, such as Figs. 1, 3 and 4 on page 59, are practically identical, both in physiognomy and in accompanying ornament, with the faces on the stelæ from Copan and Quirigua, while the freer and less standardized carvings, such as Fig. 5, resemble closely the stucco reliefs at Palenque and the painted figures on the polychrome pottery from the highlands of Guatemala.

Three of these specimens are so similar that there can be little doubt of their approximate identity of origin as regards place, time and culture. All are well shaped and of relatively thin pieces of beautiful pea green jade and all are quite similar in motive and in detail. Figure 1 (No. 5898) approaches closest to the art of the Zapotecan jade amulet last described, the relief being low, the nose broad, and the ornamental relief curvilinear, of circles and scrolls.

As so typical, the very conventionalized eyes, lips, nostrils and teeth of a monster are seen above the forehead, the face apparently being framed in the animal's mouth, but no similar detail is seen at the lower edge, and the conventionalization is so great that the nature of the beast can not be determined.

The tubular drill was apparently employed in making the large ear ornaments and other circular objects, but the use of the inclined drill for making arcs of circles is uncertain and certainly not obvious. Along the lower border at the back are four small biconical orifices, undoubtedly for the attachment of other pendent ornaments, probably of gold. The perforation for suspension runs the complete width of the specimen, a feat of drilling by no means easy in view of the slight thickness of the plate.

Figures 3 and 4 are very similar indeed in almost every respect, the principal difference being that Fig. 4 (No. 5897) is made of a thick section of jade, while that of Fig. 3 (No. 5900) is quite thin and shows on the reverse face a lateral section of a vertical biconical drilling. Apparently the amulet had originally been twice as thick and pierced by a perpendicular suspension orifice, but, as jade became rarer and more valuable, it was sawn in half and the reverse side probably employed for another amulet. Both specimens possess, like the preceding one, a number of small suspension holes at the lower edge from which other pendent ornaments, probably of gold, were hung. The thicker specimen is pierced from side to side with drilled holes by which it was suspended, while the other, too thin for such a technique, was suspended by means of small holes at the upper edge.

Both of these specimens show a full face carved in relatively high relief, especially that of Fig. 3. Both, moreover, display, in common with the preceding specimen, the very conventionalized animal face and head above the human face. That of Fig. 4 is extremely conventionalized and differs but slightly from the preceding specimen. In other respects also it resembles Fig. 1, having similar curvilinear scrolls and decorations and a necklace and other breast decoration which are practically identical. There is, however, a more typically Mayan cast of countenance.

The thinner specimen, Fig. 3, is typical of the highest and most characteristic Mayan art. The nose is high, the eyes slightly oblique and with a superficial Chinese appearance, and the incisor teeth appear prominently through the lips. The animal face seen above the fore-



Jade Amulets of Human Form from Guatemala.

head is apparently that of a bat, one of the Mayan deities, though it is quite conventionalized. All the accompanying decorations are curvilinear and typically Mayan. Beneath the chin is seen what resembles the upper portion of another animal head, the apparent eyes bearing marks which causes them to resemble closely the glyphs for the Mayan day Imix. In both of the last two specimens the tubular drill seems to have been employed for the making of circles, but apparently was never turned at an angle in order to form arcs of circles. Probably these were made at a period before the latter technique came into prominence.

Probably the finest American jade specimen (No. 5896) in the possession of the University Museum is illustrated on page 59, Fig. 5. This is made of an irregular thin chip of non-homogeneous jade, partly of blue green and partly of mottled pea green quality. But little artificial modification was done to shape the raw piece of stone, the left side and the upper edge being evened and the rear face planed, the upper edge at present being somewhat chipped with a loss of some of the detail. The drilled suspension hole runs through the specimen from side to side, and along the lower edge, as in the case of the three preceding specimens, a number of small holes, in this case five, have been drilled for the attachment of smaller pendent ornaments of gold or other material.

The low relief figure is one of most typical Mayan character. A single figure is seated cross-legged on the ground, his arms flexed asymmetrically across the body in a natural, dynamic pose. He wears breechcloth, wristlets and necklace. The head is turned to the left, or to the reader's right, and the face is shown in profile. It is a typical Mayan face such as is often seen on the stucco reliefs of the buildings of the Old Empire, markedly convex. The nose is large and without depression at the bridge, and the forehead, while obscured by the headdress, apparently shows the artificial flattening which was the custom of the Mayas at that period. The ear is curiously shaped but apparently represents the normal ear from the lobe of which hangs an ornament. The headdress is, as usually in the case of Maya figures, the most elaborate and interesting feature of the figure. As in the preceding specimens, it seems to represent the head of an animal, but in this case it is seen in profile instead of full face.

The nature of this animal headdress is quite difficult of determination. The round sunken eye is apparently unequivocal, but no

other element is definite and the teeth are certainly missing. The undulating object projecting above the face of the wearer is more confusing than definite. A certain modern school of English ethnologists would feel no hesitancy in pronouncing it the trunk of an elephant,¹ an identification which would be vigorously opposed by American archeologists, who would more likely see in it, not a diminutive proboscis, but an exaggeration of the curious nose of the leaf-nosed bat, an animal well known in the Mayan pantheon.

The seated figure probably does not represent a god, but more likely a chief, priest or warrior, wearing his ceremonial headdress. The object on the right which he is facing is of uncertain identity, but is apparently something of inanimate nature.

A Mayan jade of unusual shape but of typical art is shown as Fig. 6 on page 59 (No. 5903). The shape is semi-ovoid with a flat reverse face which was obviously sawn, an oval periphery and a markedly convex upper surface which is carved with a face and headdress in moderately high relief. The stone itself, although in parts of a beautiful green color, and highly polished, is much streaked with cracks and veins and blotched with patches of white. The sculpture shows a serene Buddha-like face surrounded by a large but simple headdress, all perfectly symmetrical. At first appearance, the headdress seems non-naturalistic, and so indeed it may truly be, but the two tiny drilled depressions to the sides of the apex of the headdress suggest a resemblance to certain reptiles or insects. The specimen is drilled from side to side for suspension, but bears no small holes at the base for the attachment of subsidiary pendants. The round ear ornaments and probably some other elements were incised by the tubular drill and certain incised curves may have been made by an inclined hollow drill, but the technique had not become dominant over the art as was the case with the Mixtec figurines. The object has the superficial appearance of belonging to a late period in the development of Maya art.

The last of this group of Mayan jades is the specimen (No. 5901) shown as Fig. 2 on page 59. This is a small and most irregular piece of mottled green and dark green jade with veins of red. This mottled appearance of the stone, together with its irregular shape and the low relief of the carving, makes its nature rather obscure. No attempt was made to alter the original shape of the stone, except that the rear side is sawn flat, but a typically Mayan face is carved on the natural

¹ G. Elliot Smith. *Elephants and Ethnologists*. London, 1924.



Pendants of Jade from Mayan Tombs.

upper surface, a face rather too large for the size of the stone. The relief is low and the carving not deep. The specimen is pierced with suspension holes drilled from either side.

In addition to the jade ornaments already described and illustrated on pages 46, 54 and 59, objects of intrinsic beauty but whose scientific value is lessened by the unfortunate fact that nothing is known of their provenience or the details of their discovery, the University Museum possesses a number of jade objects and ornaments which were excavated with scientific precision and are well documented. But although a few of these are of an artistic quality ranking with those already described here, the majority are of scientific rather than of artistic interest, affording valuable scientific data on the development of style of art and technique but of slight intrinsic or æsthetic value.

The jades in the University Museum on which full data are possessed all come from prehistoric graves in the Department of Quiché in central Guatemala, mainly in the valleys of the Chixóy or Quimalá River and its affluent, the Koopóm River, some fifty miles west of the town of Cobán. The names of the sites of the ancient villages where the specimens were excavated are unknown even to the archeologist, since such sites, unknown and unexcavated, fill the countryside, and are generally known by the name of the nearest present tiny native village, such as Chamá, Chipál, Kixpék, Ratinlixúl, Ixtahuacán. This country is today occupied by the Ixil Indians and it was more than likely their ancestors who built the mounds and the graves in which these objects were found. They form a branch of the great Mayan stock and in pre-Columbian days played a part—if probably a minor one—in the wonderful Mayan culture which reached its apex of development in the lowlands of Guatemala and Yucatan.

Eighteen of the most interesting of the jade objects from these Guatemalan graves together with three more jade objects of unknown provenience are shown in the three plates on pages 63, 66 and 70.

On page 63 are shown the best six of these jade amulets. Two of them, Figs. 5 and 6, are of a quality ranking with those already described and obviously of identical type of art.

Figure 6 (No. 11590) was excavated at Kixpék, one of the small sites, where it was found beside the remains of a skull in a round, stone-lined chamber grave in a large mound. Judging from this position, and by analogy with the even more definitely placed other

jades which were occasionally found within skulls, this was one of the jade ornaments which, according to historical report,¹ were placed in the mouths of deceased chiefs at burial. The stone is of blue green jade mottled with white and of practically unaltered natural shape, the rear side alone, apparently, having been evened. The carving is in low relief, the serene face, of Oriental cast, and the flowing headdress and other ornamentation being typically Mayan. The ear ornaments were made with a tubular drill and the eyes and mouth by a small drill turned on its edge. A drilled suspension hole pierces the amulet from side to side.

The other typically Mayan amulet (No. 11060), Fig. 5, was excavated at Chamá, from the earth near the surface of a mound. It is one of the most unusual and striking of the jades shown. The material is a very veined, mottled and apparently metamorphosed blue green stone much resembling fossil ivory. Apparently little modification was made of the original piece, the outline being irregular and the upper surface irregularly convex. The back, however, is in three planes, resembling three of the faces of an octagonal prism or crystal. The carving is that of a face of sinister expression seen in profile. The nose is prominent and convex and the forehead and chin retreating, altogether a typical Mayan physiognomy. Certain elements, such as the ear, mouth and wings of the nose, give the impression of having been made by a tubular drill. The headdress is simple, but surrounding the face behind and beneath, an elbow in high relief with three high knobs is seen. The intent of this feature is quite dubious. The usual suspension hole pierces the specimen from side to side.

The other four specimens are not of typical Mayan art, differing considerably from those already described and illustrated. Neither are they typical, however, of any other known art, and they must be considered, then, as variations of Mayan art, possibly antecedent to or decadent to the more typical Mayan work.

Figure 3 (No. 11601) is the least variant of the four. It was found at Kixpék, but in a different ruin and grave from Fig. 6. Nevertheless the probability is that it was of practically the same age, despite the variation in art. The stone is apparently a piece of jade of practically unaltered, natural irregular shape, but the color is rather grayish, with a greenish tinge in places on the carved surface, the visual impression being that of an old faded figurine of Egyptian

¹ Cf. footnote 5, p. 48.

blue faience pottery. The face, of general Mayan cast, is disproportionately large, and the legs vestigially small and conventionalized. The arms are folded across the breast, and necklace, earrings, headdress and lower clothing are displayed. The absence of any work with a tubular drill is noticeable, and this, together with the general impression of rigidity of pose and the unnatural proportions, gives the effect of archaism to the figurine. Two suspension drillings are observed, one piercing the specimen vertically from head to foot, the other laterally through the head.

An amulet (No. 11643) of very different nature, though also from Kixpék, is illustrated as Fig. 4. Unfortunately it was not excavated by the archeologist but brought to him by his workmen. Unlike the preceding specimen, it gives the impression of stylized art and very late technique. Although of a very different artistic style from the Mixtec figurines on page 46, it is, like them, made mainly by the tilted hollow drill technique. Every line of the carving is curvilinear and the majority of them were made by tubular drills of various diameters. The result is a most conventionalized representation of a face seen in profile with necklace and headdress. The stone is apparently a superficial segment sawn from a larger jade boulder, the back being perfectly flat, the edge irregular and the carved surface unevenly convex. A single drilled hole, not, as in every other case, two drilled holes meeting in the interior of the stone, pierces the stone from edge to edge near the top.

The two remaining amulets are from Chamá where they were excavated from the same mound, close to the surface and apparently not in graves, but not together. They are of quite different nature and art. Figure 2 (No. 11045) is a symmetrical, very conventionalized, small figurine of highly polished pale green stone. The entire effect is most archaic, the head being disproportionately large, and the lower body barely indicated. The specimen has evidently seen great wear and most of the details are difficult to distinguish, but the general archaic nature of the carving is quite obvious, resembling the larger stone sculptures of the "Archaic Culture."¹ Despite its occurrence in a Mayan mound, it is difficult to avoid the conclusion that it belongs in a pre-Mayan culture.

Figure 1 (No. 11058) on page 63 is again of rather unusual type and art, being typical of none of the Middle American cultures.

¹ Herbert J. Spinden, *Ancient Civilizations of Mexico*. Handbook No. 3, American Museum of Natural History, New York City, 1917; pp. 54-56.



Jade Ornaments from Central America.

present or past. It is made of a piece of slightly translucent pale green jade in the shape of a coffee bean, flattened hemispherical, the base slightly concave, the upper surface markedly convex. On this upper surface a face is carved and incised, a rotund "man in the moon" face. The art is simpler, more naturalistic, and decidedly less stylized than the more typical Mayan figurines and, seen in profile, is most natural. The work was apparently done exclusively by carving, abrasion and incision, no trace of the tubular drill being found anywhere. Several of the short straight lines were made by sawing, however. A pair of small drilled holes on the rim were employed for suspension.

The existence in the same general region of four amulets like those last described, which differ so decidedly among themselves and from the other two more typically Mayan amulets, is a fact which brings up problems difficult of solution. Even allowing for the individual idiosyncracies of the artists, the differences are too great to be explainable on grounds other than those of culture. These cultural differences may be spatial, the objects having been imported from other cultures by trade, or temporal, in which case certain ones are older than, and artistically ancestral to others. The sequences of culture and the development of art in small objects in this region are still too imperfectly known to permit of further deductions and conclusions.

Seven small naturalistic objects of jade or other hard green stones are shown on page 66. Five of these are very similar, representing the head of an animal with large round eyes and long pointed nose or beak. One of these (No. 5973), Fig. 6, of emerald green jade and variant type, is of unknown provenience. The head most closely resembles that of an alligator or crocodile, although the resemblance to any animal is not great. The eyes are made with a small tubular drill and no less than three suspension holes pierce the specimen. One of these, a tiny one at the nose, was obviously for the attachment of a subsidiary pendant; the other two, large, horizontal and parallel, are near the base of the head.

The other four specimens are very similar and apparently represent a bird, probably a flamingo, toucan or some other bird with a large hooked beak. Two of them (Nos. 11704 and 11687), Figs. 4 and 7, were discovered at Ratinlixúl, and two (Nos. 11501 and 11482), Figs. 2 and 5, at Chipál. Figure 7 was a "death bead" since it was found with the remains of a jawbone in a rectangular

stone sepulchre in a large mound, and the same may be said of Fig. 2, which was found in the mouth of a burial. Both had doubtless been placed in the mouths of the deceased in accord with ancient custom as recorded in early histories. The other two specimens were apparently not connected with burials. In all of these specimens the eyes were made by the use of a hollow drill, and in the case of Fig. 4 at least, most of the other features were made by the inclined drill technique; its use is less certain with the other specimens. The largest and most naturalistic one, the "death bead" from Ratinlixúl, Fig. 7, evidently held a subsidiary pendant, for a small hole has been drilled at the tip of the beak. But on the whole the specimens are not of great merit and were evidently utilizations of small bits, chips and pebbles of jade, indicating the great value which was placed upon the stone.

The two remaining specimens on the plate on page 66 are quite unusual. Figure 1 (No. 11059), excavated from near the surface of a mound at Chamá, is a carved bead of blue green jade. It is possible that the profile of a human face, very stylized and conventionalized, is shown, but an accurate identification is impossible. Figure 3 (No. 11635), from a burial at the foot of a mound at Kixpék, is the most unusual of all and is of a type of art which is not characteristically Mayan. It is well carved and smoothed, of a mottled blue and green stone which is slightly softer than jade. The representation is that of a grotesque human head with an immense Punch-like nose. The small piggish eyes were made by a small hollow drill which left a tiny core to represent the pupil, and the long mouth is represented by a long, deep sawn groove, none too regular. Possibly the long pendent nose was suggested by that of the tapir and may have characterized a tapir god, possibly a minor divinity.

All the specimens on this plate are drilled transversely for purposes of suspension.

The final plate on page 70 shows eight non-naturalistic specimens of greenish stones. While individual analyses have not been made, most of them are apparently jades, though several may be of quartzite or other crystalline stones. Probably most of them served as pendent ornaments, but the two specimens of ferrule shape with larger orifices were more likely ear ornaments, inserted in holes in the lobes of the ears.

Figures 1, 2 and 3 (Nos. 11082 and 11477) are of button shape, the first from Chamá where it was found in a mound just below the

surface, the other two from Chipál where a large number of jade beads were found, evidently from a necklace. The forms are identical, of a thick bowl shape with a central truncated cone rising to a height equal to that of the rim, perforated for stringing or suspension. Figure 4 (No. 11019) is a modification of the foregoing and was found at Ixtahuacán where it was picked up by a native in farm work. It is apparently of crystalline quartzite with a glassy surface. In effect, it is a thin flat quasi-circular plate with a depressed circular ring in the center, made, doubtless, with a hollow drill. From this point incised lines radiate, regular and symmetrical by plan, but technically inferior and made by engraving, not by the sawing process. In addition to the central perforation, another exists near the edge. The next two specimens, Figs. 5 and 6, from the same mound at Chamá, are slightly bell or ferrule shaped, the former (No. 11147) having four radiating grooves to the pseudo-corners which cause it to resemble a morningglory flower, and a second suspensory perforation near the rim, while the latter (No. 11260) has a large conical central depression and orifice.

The final specimens, Figs. 7 and 8, are from the Museum's collection of Mexican jades without definite provenience. Both are beautiful specimens of greenish jade of excellent color and technique. The former (No. 5991) is an object of ferrule shape and was probably an ear ornament, the latter (No. 6292) is a beautiful long bead of quadrangular cross section, with decorative grooves at either end. It is pierced throughout its length with biconical drillings which meet in the center, a technical feat for the primitive lapidary.



The stela of Ur-Nammu. The flying angel brings from heaven a vase overflowing with rain water. The king stands worshipping before the enthroned Moon god. The fragment belongs to the top register of the face. It has a similar scene on the reverse as shown on page 76. The stela dates from B.C. 2300.

THE STELA OF THE FLYING ANGELS

BY DR. LEON LEGRAIN

I

THE great stela of King Ur-Nammu has been called by Mr. C. Leonard Woolley in his successive reports of the work done by the Joint Expedition of the British Museum and the Museum of the University of Pennsylvania to Mesopotamia, the most important monument yet found at Ur, a magnificent example of the art of the time, a historical document whose appeal is not less direct, ranking despite its fragmentary condition with the stela of the Vultures in the Louvre, as one of the two most important relics of Sumerian art known. Why not call it the Stela of the Flying Angels?

On this stone were recorded the achievements of King Ur-Nammu, the founder of the third dynasty of Ur about B.C. 2300 and builder of the great Ziggurat as well as the constructor of many canals. Ur-Nammu's reign was short. Whether the stone was erected by him or by King Dungi, his son and successor, is an open question. King Nabonidus of Babylon, who repaired and finished the Ziggurat of Ur, states that it was founded and partly built by Ur-Nammu and Dungi, but never finished.

The display of the main fragments of the stela in the Ur room at the Museum gives a fine opportunity for a closer study of its historical and symbolic scenes. These notes will supplement the information published in the first report in the *MUSEUM JOURNAL* of March, 1925.

The stela is a limestone slab, 1.52 m. across, at least 3.00 m. high—if all the fragments were in their proper places—slightly tapering upwards with a thickness varying from 0.28 m. or more to 0.24 m. The top was rounded as in the stela of the Vultures and the Berlin stela of Gudea. A portion of the original curve is still preserved on the fragment of the flying angels. The stone was carved on both sides with scenes in relief. There were probably five registers, each 0.41 m. high, on the face, and as many on the back. An exception must be made for the top registers below the curve, which were double size or 0.82 m. high. Raised borders, 0.055 m. high, separated the registers. A border of exceptional size—0.22 m.—was reserved for a two column inscription.



The stela of Ur-Nammu. The flying angel brings the vase overflowing with water from heaven. This scene is similar to the preceding on page 74 and is carved on the back of the same block. The curved edge of the stone shows that the stela was rounded at the top.

II

TOP REGISTERS. SCENE OF THE FLYING ANGELS. THE HEAVENLY GIFT OF WATER

Graceful girlish figures glide downwards from heaven holding with both hands the overflowing bottle, whose precious liquid brings life and fertility to green palms planted between the enthroned Moon god and the standing worshipping king of Ur. Messengers from heaven, they wear the horned mitre, their long dishevelled hair is floating on their shoulders. They are a prototype of the Greek Nike, and not unlike the Botticelli angels. Their plaited linen robe, passing over the left shoulder after the Sumerian fashion, leaves bare the right breast showing its youthful curves below the outstretched arms.



The seal of Gudea, patesi of Lagash, introduced by his private god to the god Ea, who gives him perennial water.

Découvertes en Chaldée, p. 293.

One hand is clasped around the neck of the bottle, the other hand supports the round bottom.¹ The motive of the overflowing bottle is not new, it had been for over a century the delight of the stone carvers at Lagash, a city forty miles north of Ur. These men loved to represent a network of those overflowing vases connected by their liquid streams, or a chain of young nymphs passing from hand to hand the same spouting vase. Sometimes a green bough is planted in its mouth, or little fishes swim along the streams. Minor female deities or the bearded Gilgamesh hold the vase precious against their breast. Finally, the spouting vase is placed in the hands of the enthroned god on the very seal of Gudea, the local ruler. The same scene is repeated on the larger Gudea stela in Berlin. On both monuments the water escaping the hands of the god falls in wavy

¹ The original figure of the flying angel is found on the "Bassin sculpté," of Gudea, cf. *Découvertes en Chaldée*, pl. 24, fig. 4 and p. 217, also Br. Meissner, *Babylonien und Assyrien*, Band II, Taf.-Abb. 25.



Stela of the Vultures in the Louvre Museum. It shows the victory of the Sumerian army of Lagash and of their god Ningirsu over the people of Umma, the rival city. The god holds his enemies in a net. B.C. 3200.

Obverse.



Stela of the Vultures in the Louvre Museum. It shows in four registers: the Sumerian legion, the king on his chariot, the sacrifice for the dead, a long lance striking the enemy king. On the top Vultures are seen carrying off heads and limbs of the dead. B.C. 3200.

Reverse.

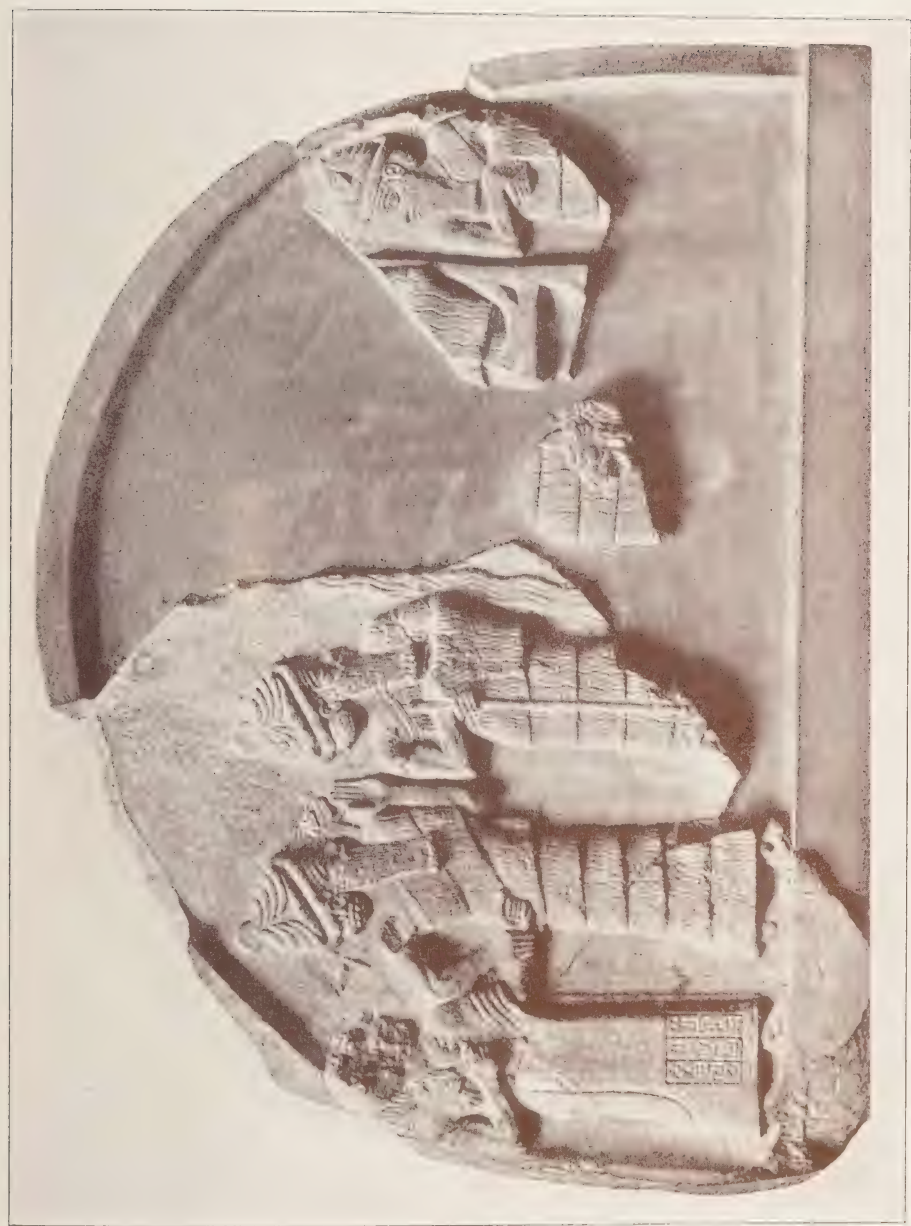
lines at his feet. This is a precious indication for a reconstruction of the much damaged stela of Ur-Nammu. Enough is left of the liquid stream bathing the foot of the enthroned god (upper relief on page 84) to connect it with the fragment of the flying angels. A small fragment (page 82) shows the stream of water, and an extended bare right arm which may as well belong to the seated god as to one of the flying angels.

The large mitre with four pairs of horns surmounted by a crescent belongs certainly to the enthroned god below the flying angels on the top register. The larger size of the head compared to similar mitres on other fragments would prove this. The crescent decorating it shows that the main figure, as might be expected, was that of the Moon god Nannar, the king and patron of Ur. Why the crescent is missing on the mitre of the god in the second register (pages 84 and 85) is not explained. Perhaps that god holding the rod and the line is not the Moon god himself, but another deity like Ea, the great builder. In the construction of the temple of Lagash the same god Ea is on record as having laid the foundation. It was a state affair in which every talent and expert was welcome.

The whole composition of the angels bringing rainwater from heaven is new and so far unique in Mesopotamian art. They answer the eternal question of that dry land, water from the sky or water from the river, rain or flood, the fertility of the country depending entirely on good and continuous irrigation in the days of Ur-Nammu and today. But the waters from above, and the springs of the deep abyss are all in the hands of the gods. A wise ruler will attend to canal cutting and cleaning, but who will fill them with clear running water if not the powerful Moon god when satisfied with his own people? The building of his great tower is a meritorious work that will in return bring blessings in the land. In the same manner Gudea at Lagash was rewarded for his building of the temple by an exceptional overflowing of the Tigris. The gift of water is the best introduction to the various scenes on the stela.

The flying angels appear on both sides of the stela and seem to have been repeated at least four times in the top registers. Perhaps each angel symbolises each of the four winds at the four points of the compass, interesting the whole heaven in the welfare of the land of Ur.

The worshipping king stands in front of his god, his right hand in one instance lifted to the level of his mouth, which is the traditional gesture of adoration. He wears short hair, long plaited beard,



Gudea, the patesi of Lagash, is introduced to the god Ningirsu, who holds a vase from which streams of water flow.
Stela in the Berlin Museum.



The stela of Ur-Nammu. One fragment shows the mitre of the Moon god with four pairs of horns and a crescent. The other represents a bare right arm and a stream of water. Both belong to the upper register of the face or of the reverse.

bracelets and necklace. His simple fringed shawl covers the left shoulder and leaves bare the right arm in true Sumerian style. The flounced woolen garment of "kaunakes" is reserved to the god. A round woolen turban, in vogue since the time of Gudea, covers the head of the king. The name of King Ur-Nammu has been found engraved on a mere flake of stone which is the lower part of the king's garment and probably belongs to the top register of the face of the stela. At least it has been reconstructed in that position on page 85. But we must not forget that the feet of the king have been restored and might as well be turned to the left as to the right and their position in front of the right hand throne is not certain. In any case the figure of the king is placed too close to the throne of the god and should stand towards the middle of the register back to back with a second figure of the same king facing left, above and in the same position as the two assistant goddesses in the second register (page 85). In fact, traces of the second figure of the king, back to back with the first one, are still visible on pages 74 and 76, despite the severe hammering of the heads at the hands of savage enemies, and there are also traces of the green palm (page 76) still visible between the streams of water pouring from heaven. The palm was probably planted in a vase between bunches of dates as in the register below. The watering of the palm is both a graceful and sacred rite and takes its full meaning in a land where dates are one of the staple foods, where palm groves yield the richest and most reliable harvest, large enough to supply export even today from Basra port to the rest of the world.

III

SCENE OF LIBATION TO THE ENTHRONED GOD AND GODDESS. THE BUILDER'S MISSION (Pages 84 and 85)

This is a classical scene at Ur of the Chaldees and is borrowed from the daily ritual, in the various shrines which the progress of excavation has revealed. There was the statue of the god raised on its brick base at the end of the double room opening on the inner court. Bunches of dates and palms were placed in front of the statue in one of those hourglass shaped travertine vases, whose very fragments have been recovered in the ruins, bearing engraved the name and dedication of many rulers and kings. The king approaches the statue and pours water on the offerings from one of those conical vases, of which there are many examples in our collection. One



Stela of Ur-Nammu. Fragments of the three upper registers of the face. The first shows the throne of the Moon god, and a stream of water flowing to his feet. In the second, Ur-Nammu pours a libation to the Moon goddess on the left, to the Moon god on the right. The god holds the rod, line and adze and orders him to build the tower. In the third, the king shoulders the instruments of the mason and is led by his patron god to lay the foundation brick of the tower.

The stone is five feet across. About B.C. 2300.



Stela of Ur-Nammu. Restoration of the three upper registers of the face. The name of the king is inscribed on the fragment replaced in the first register in front of the throne. The figures of the king in the second register have been restored and copied on the third.

elegant alabaster tumbler bears a cartouche with these words: "Property of the Moon goddess." A worshiping goddess is assisting the king, with both hands lifted in sign of adoration.

Dresses and headgears vary with rank and dignity. God and goddess wear the mitre with four pairs of horns, emblem of divinity, long hair tied behind in a chignon, the best flounced woolen garment covering the left shoulder, armlets probably, and necklaces, the goddess a tight dog necklace of five rows. Their feet are bare. The god is known by the long plaited beard; the goddess, by the long locks resting on her shoulders. The right hand is extended in sign of gracious welcome, or holds, in the case of the god, the line and rod of the architect, in his left he wields a bronze adze like a scepter. This has been interpreted as the mission given by the Moon god to King Ur-Nammu to build his house and great tower. The dream of Gudea, the vision of King Solomon, and of the prophet Ezechiel are other famous examples of the builder's mission. The interpretation is confirmed by a fragment of the third register where the king carrying on his shoulder the adze and the instruments of the mason, basket, compass, ladle and trowel, starts in solemn procession to lay the corner brick, his own patron god leading and introducing him. A servant of the temple, all shaven and shorn, helps to shoulder the king's load.

The assistant goddess in the second register wears a long linen plaited garment covering the left shoulder. The long locks of her hair hang down her back. Like the flying angel, she wore probably a mitre with a single pair of horns. Her part is subordinate and might have been played by the high priestess, generally a daughter of the king and naturally presiding at the libation rites.

The libation is poured by the king himself, who never lost his priestly right and sense of being the true representative of the god. The high priest in the temple is only his delegate discharging the duties of the daily ritual.

A comparison between pages 84 and 85 shows that the head of the king has been twice restored, also the upper part of the body of the king facing the god. This last restoration might be improved to come nearer the original. The beard is too large. The ear must be partly covered by the turban. The two shoulders must be in front face, and not in perspective. The shawl must pass below the naked right arm and over the left shoulder. The king holds the libation cone in the right hand alone, while the left is lifting the folds of the fringed shawl.



Stela of Ur-Nammu. The sacrifice of the bull. The priest cuts open the body to read the omens on the liver. A second priest pours the blood of the lamb in front of a statue.
Second register of the reverse.



The stela of Ur-Nammu. The third, fourth and fifth registers of the back. Prisoner scene, drummer scene and scene of worship before a statue(?) of the king. See details on pages 90 to 92. The inscription below the drummers gives a list of the canals cut by the king.

It is remarkable that a perfect join between the fragments was found across the last mentioned figure of the king, giving the original width of the stela, and not less interesting is it to learn that the fragment of the ritual sacrifice (page 87) was the back of the libation scene before the seated goddess. In fact the fragment was sawn off the block on the field, the libation scene being face down and unsuspected. The scene of sacrifice on the face of the block was so brittle and damaged that it had to be waxed and plastered and then sawn off to be removed safely.

IV

SCENE OF ANIMAL SACRIFICES AND DIVINATION (Page 87)

All has been said about that remarkable sculpture. We need only to quote the words of Mr. Woolley: "That scene of sacrifice is unexampled in Sumerian art. A bull has been thrown to the ground and lies prone. One man sets his foot upon the animal's chin and grasps its forelegs. Another stoops over the body and cuts open the breast to examine the liver, for divination by the liver was one of the commonest forms of Babylonian magic. Meanwhile a third man has cut off the head of a he-goat and holding the body like a water skin by the hind legs and the neck pours out the blood in a stream in front of a low base whereon stands the statue of a god bearing a flail. This is the earliest known representation in art of the practice of divination and of animal sacrifices at Ur of the Chaldees long before the days of Abraham."

The men wear only a fringed loin cloth down to the knees, with a belt girded about their body and supported by a strap over the left shoulder. They are servants of the temple, priestly butchers in their working clothes. Two knife sheaths are stuck in their belt. The prone bull must have occupied the centre of the register. Toward the right, crescents on poles at the back of the statue are probably emblems decorating the entrance of a shrine.

V

THE CANAL INSCRIPTION. BIG DRUM, PRISONERS AND SCENES OF SACRIFICE (Page 88)

The fragments of the canal inscription have led to a further reconstruction of the stela. The digging of canals is the most impor-



The stela of Ur-Nammu. The king on his throne. A prisoner is led with his arms tied behind his back.
In the inset, two Sumerian heads with short beard and hair. Third(?) register of the reverse.



The stela of Ur-Nammu. The musicians beating the big drum and clapping their hands in oriental style.
The inscription gives a list of the canals cut by the king. Fourth(?) register of the reverse.



The stela of Ur-Nammu. A scene of libation to a statue(?) of the king worshiped as a god.
Fifth(?) register of the reverse. The inscription above gives a list of the canals cut by the king.

tant of the duties of a Mesopotamian ruler. Ur-Nammu did not fail in that duty and wanted future generations to know it. The long list of his canals supports his claim to have made of the land a new Garden of Eden. He made also of Ur a head harbour where the boats of Dilmun, Magan and Meluhha would unload the products of Egypt and India, gold, silver, precious wood and stones. The three fragmentary registers above and below the inscription are probably a commentary on his activities in peace and war.

In the upper register (page 90): "There is a throne on which was a seated statue, probably that of the king, and before him a man armed with a short baton who guides another man apparently a prisoner with his arms tied behind his back. This must be a commemoration of Ur-engur's victories in war."

The two fragmentary heads inserted on page 90 show a new type of servant no longer shaven and shorn but wearing short curly hair and beard. This is probably a class of workers—musicians, farmers—not so intimately connected with temple ritual activities.

In the lower register (page 91) two men beat an enormous drum and may well be celebrating the triumph of the king. Metal pieces round the drum add to the effect of the beating done with the flat of the hand if we trust similar reliefs found in Lagash. The drummers wear the short curly hair and beard described above. Their long plaited shawl is not thrown over the left shoulder but attached to the waist over the loin cloth, showing their bare legs in front through the natural opening. The upper body is stripped for the vigorous action of drum beating. A third musician behind the right drummer keeps time by clapping his hands.

The last register below the inscription (page 92) contains another scene of sacrifice. "The king, behind whom stands an attendant priest, faces a simple altar or base on the other side of which is a man ready to pour a libation from a slender vase."

The king between the libator and the worshipping priest has a passive attitude with both hands clasped or pressing to his breast some defaced object. His higher stature may be a conventional expression of his greater dignity. We may conjecture that the figure represents a statue of the king placed on record in the temple and later worshiped as a god. The statues of Gudea were in their turn an object of cult and Ur-Nammu's son, Dungi and his successors, were in their lifetime honoured like gods and had shrines to their name. If the stone has been erected by Dungi as a memorial of his



Stela of Ur-Nammu. The building of the brick tower of Ur. The labourers carry baskets full of mud mortar and climb up the ladder to the higher level. This scene restored from very small fragments may belong to the fourth register of the face of the Stela.

father, nothing could be more natural than this scene of worship and its position at the lower part of the back of the stela is very modest and proper.

The fragment restoring the head of the libator, and a few signs of the inscription, shows also one of those palms planted with bunches of dates in a slender vase, which never fail in scenes of libation.

VI

THE BUILDING OF THE ZIGGURAT

(Page 94)

An attempt has been made to restore that interesting scene which is one of the main reasons for the carving and erection of the stela, the actual building of the stage tower with bricklayers at work and labourers climbing ladders with baskets of mortar. They wear the same short hair and beard as the musicians and farmers. Their loin cloth and belt have been copied on the figures of the butchers. The belt is not certain and the strap ought to pass over the left shoulder. The figures have been given a height of 0.30 m. from the ground line. The whole composition evidently was more than 0.41 m. high and may have covered two registers.

The band below the foot of the ladder is 0.21 m. high and forms an exact counterpart of the band carrying the canal inscription. There was another register below this band as below the inscription. The building of the ziggurat should be the fourth register of the face, but its connection with the third is not established.

A small bearded head has been placed for the present at the lower part of the plate, with no other reason than to fill a gap.

VII

DISCONNECTED FRAGMENTS. THE MILKING SCENE.

(Pages 96 and 97)

To complete our survey of the stela some interesting fragments are presented here for their historical relief value. They cannot for the time be connected with the rest of the stela. The first represents a Sumerian priest shaven and shorn carrying a fly-whisk (?). Mr. Woolley remarks that "those who have lived in the East understand how it was that Satan came to be called the lord of flies."



Stela of Ur-Nammu. Disconnected fragments. The head of a Sumerian priest carrying a fly-whisk. A bearded god with rod and ring. The king holding an adze.



The milking scene on a fragment discovered during the first campaign, may belong to the stela of Ur-Nammu.
The bearded Sumerian milks his cow from behind.

The second is a fragment of a divine figure carrying staff and ring. The fine curled beard and the long flounces of the garment are beautifully preserved.

The third belongs to a figure of the king carrying the bronze adze in his left hand, his left arm being covered by the folds of his fringed shawl.

Last of all, the milking scene (page 97, from a cast), a fragment discovered during the first expedition in 1922-1923, may or may not belong to Ur-Nammu's stela. The type of hair, beard, loin cloth and belt (?) of the cowboy is the same as that of the musicians and butchers. But the milking scene is in the style of a much earlier frieze from Tell-el-Obeid.

"Great as is the historic interest of this record of the building of the Ziggurat, the importance of the monument as illustrating the art of the time is greater still and those fragments where the surface of the stone is well preserved and so the artist's work can be fairly judged are a striking testimony to the high artistic traditions and technical mastery of the sculptor of the 23rd century before Christ."

TWO WOODEN STATUETTES FROM THE LOWER CONGO

BY H. U. HALL

I. A NAIL FETISH FROM THE MARITIME CONGO

A REMARKABLE example of this class of fetishes, which is so characteristic of the maritime region of the Congo, especially of Loango, Mayombe, and Cabinda, was published in the MUSEUM JOURNAL for March, 1924. This more recently acquired specimen, though it shares the principal sculptural qualities of the former, of another which was figured in the JOURNAL of March, 1920, and, indeed, of such images in general, is distinguished from them by certain features.

The most obvious of these characteristics is its archaic appearance, if one may apply this epithet to a wooden object from Africa of which contemporary types exist. The very hard yellow wood from which the figure is carved has received a kind of polish which is due to long years of handling such as the softer wood from which most of these figures are made would hardly have survived in so relatively unmutilated a condition. The only important mutilations it has suffered in fact are from boring insects, which have driven channels here and there, notably one large one in the right side of the head, and from the weather, which has eroded the softer portions of the wood, between rings, in the under surface, mainly, of the pedestal, and to a less extent in the other surfaces of the figure among the holes made in regular course by the driving in of nails and other pointed bits of iron. Most of these have been extracted and the others broken off near the surface. As the surfaces of the fractures are as much oxidized as the remaining visible parts of the nails and as the apertures left where the nails have been withdrawn or where the metal does not fill the hole show the same weathering as the rest of the wooden surface, it seems clear that the extractions, successful or attempted, were a part of the regular ceremonial practices of which the figure was the centre and are not due to any process of tidying-up at the hands of an alien collector or owner. The withdrawal of a nail by the fetish master at the instance of the

person menaced by the activities of the fetish, on confession and the payment of a fee by this culprit, might save the latter from the consequences of his offence.

The second distinguishing characteristic referred to as reinforcing the impression of great age received from the appearance of the figure is the extreme simplicity of style with which it is executed, even though the fundamental stylistic features of the class are all present—the rather strained backward tilt of the flattened spheroid of the head, the strong columnar neck, the slighting of the knee joint, the planting of the column-like leg in the flat base formed by the foot so that this base forms as distinct, if not quite as large, a shelf in the position of the heel as in that of the instep and toes—which latter in this figure number six to each foot.

The usual lack of detailed modelling in the representation by negroes of the trunk and limbs of the human figure is more nearly complete in the case of such figures as these, which are destined finally to have their outlines obscured by the large number of nails which they are to receive. But it is the summary treatment of the features of the face of this particular example which emphasizes the impression of age given by the condition of the wood. Although the fetish must have been in continuous use for a long time, that is to say cannot be regarded as an unfinished effort, these features have been hardly more than blocked out. And this is in marked contrast to what is typically the case with nail fetishes. A glance at the characteristic figures illustrated in the numbers of the JOURNAL referred to above will show this. The face is the portion of the figure on which the woodcarver concentrates his interest and efforts. Here, even the mutilation of the mouth has not much simplified the construction of that feature. Generally, expression and lifelikeness is sought for by inlaying a piece of porcelain or shell for the eyeball. In this case no hollow was prepared for such a contrivance beneath the simple brow-shaped prominences which mark the upper outline of the orbits. That no such addition even as might be applied with gum or resin to the flat surface ever existed, is made almost certain by the position of the nail holes on the right side of the face. The marked concavity of the long upper lip, which may be noted in the figure in Vol. XI, Fig. 24, and to a smaller degree in the other figure already referred to, as well as the basically similar character of the modelling of the whole face, however rude in this case, brings out the fundamental relationship of



A very old Nail Fetish from the Maritime Congo.

this to the later and more carefully executed examples and almost establishes for it, if not a prototypical character, at least an earlier position in a line of development, or, more properly, a process of refinement.

The wooden images of this region are usually distinguished into those which have a fetish or magical character and those which are merely the product of the artistic fancy of the maker. The former are said invariably to have attached to them some extraneous substance, a "medicine" in which the magical potency of the fetish resides. In the case of the nail fetishes this usually consists of a conglomeration of rubbish embedded in an oval or rectangular matrix of gum stuck on to the abdomen of the figure and faced with a bit of mirror glass. This is supplemented, in most if not all cases, by a similar concretion moulded into the form of a cap on the head of the figure.

Neither of these contrivances is to be found on this statuette and there is no trace of their ever having been there. As for the abdominal "medicine" container, the presence of several nail holes in the precise position which it occupies in other examples of this class of fetishes or fetish vehicles is proof that the figure was used in the traditional magical procedure without any such appendage. Where caps of a similar nature occur, the wood on the top of the head of the figure is carved roughly into a shape which will facilitate the adherence of the concretion. There is no such shaping here; the top of the head, roughly finished off, is flattened in a way that would hinder rather than help such adherence. Some fetishes in human form have a "medicine" carrier on the back in a position corresponding to that in front. Nail holes occur in that position in this figure, indicating that there was no such appendage there while the figure was employed as a nail fetish.

Does the absence of these "medicine chests" from this figure, whose every other attribute points to a quite respectable antiquity, imply the existence of a period in the development of magic or religion in the Maritime Congo, when "power" resided in the figure itself and not in any extraneous objects attached to it? Our two chief authorities for this region, Dennett and Pechuel-Loesche,¹ conflict on the matters relevant to this point. According to the former, a spirit is conjured into the nail fetish and acts from within it, presumably using nails and "medicine" as instruments of its own power; accord-

¹ See the numbers of the MUSEUM JOURNAL referred to above.

ing to the latter, no spirit is concerned, but some power inherent in the nature of the ingredients compounded into "medicine" by the fetish master or sorcerer, and for this "medicine" the figure, human or animal, is merely a convenient holder, while it is the fetish master who, in virtue of his special knowledge of magical procedure, wields and makes effective the intrinsic power of the medicine. So that, if we accept Dennett's testimony, not merely was there formerly a spiritualistic belief connected with nail fetishes but it is just that which now actuates and guides the practices concerned. Dennett was a painstaking but sentimental observer who was much given to finding vestigial memories, strangely numerous and highly organized among themselves for such survivals, of ancient Christian-like politico-religious "systems" at the back of West Coast black men's minds. On the other hand Pechuel-Loesche was to all appearance a careful observer without any positive prepossessions of the nature of Dennett's. Yet Dennett's account of the introduction of a spirit into the fetish is circumstantial enough and inherently probable in view of the prevailing animistic beliefs of the region, which are not denied by Pechuel-Loesche to exist in a sphere outside of that which includes the manipulation of fetishes.

In view of this prevailing belief in spirits and in the importance of their activities in influencing those of men, and in view of the absence of extraneous "medicine" from this nail fetish, as well as of the fact that Pechuel-Loesche laid great emphasis on the necessity of this magical substance for the efficacy of the fetish, is it quite certain that a negative bias on the part of this author against the all-inclusiveness of animistic explanations of such phenomena may not have helped him to deceive himself? At any rate, the discovery of a nail fetish without a "medicine-case" is a challenge to such presumption of verisimilitude as was formerly accorded to Pechuel-Loesche's doctrine of nail fetishes. What is there here to release or project, for hurt or healing, but something which resides in the figure itself—something which, since its essential properties are not bound up in any foreign matter, owes those properties, not to any magical quality of the wood itself, for then any bit of this material would do, but to the only distinctive thing about this bit of wood, its being in the form of a human, and capable then of projecting, if anything, its human essence, its "spirit"?

Moreover, Pechuel-Loesche's explanation of the use of human figures as carriers or holders of "medicine" which does not derive its



Back view of the Nail Fetish.

efficacy from human powers, this efficacy being inherent in the inorganic materials of which the "medicine" is made, does not seem to be satisfactorily consistent with another detail of his system of fetishism. Many or most, if not all, of the figures so used, he says, are in origin "fetishes of honour" (Ehrenfetische), representations or monuments, so to speak, of great sorcerers and physicians, made during their lifetime to awaken terror, to serve as remembrancers (Mahnbilder), and to bring health. In this last respect, at any rate, it would seem that the figures which elsewhere he represents as having a function quite neutral with regard to the real activities of the medicine, are in fact sharing in, or even usurping, that function (since fetishes of healing are an important class of nail fetishes) and acting in fact just as benevolent spirits are elsewhere believed to do. The spirit, or the energy of the spirit, might be released through the apertures made by the nails in the manner suggested for the loosing of the forces of the medicine in the article on the large community fetish in the JOURNAL for March, 1924, the spirit inhabiting the fetish being assumed to be in control of, or identified with, the forces enshrined in the "medicine," and the former being controlled by the fetish master.

Though the rationale of the manner in which the nail fetishes operate must remain hypothetical, it seems to me that there can be little doubt that their working is connected with the spiritistic conceptions prevailing in the region. Dennett's testimony to this effect is supported by that of others, with respect to the conceptions guiding the use of fetish figures in general. Thus Diedrich: "The fetish is in a manner an 'incarnation,' if I may so express myself, of the memory of the absent spirit, which has the purpose of bringing about a favourable disposition of the spirit in such or such a special case. Thus a woman will have followed the calling of a midwife and distinguished herself in it. She dies, but her memory lives in the recollection of those who knew her. Here is an expectant mother in labour. She goes to invoke the fetish for a successful delivery. The spirit of the celebrated deceased midwife will be summoned; it is also 'incarnated' in the statuette representing the fetish."¹ This is evidently one of Pechuel-Loesche's "Ehrenfetische," except that it is not a "monument" to the living, and is explained in a more consistent manner.

¹ Les Mayombe, C. van Overbergh and E. de Jonghe, Brussels, 1907, p. 300.

II. A STATUETTE FROM BRAZZAVILLE

In the southern part of the French Congo, a mile or two from the southwestern shore of Stanley Pool, lies the town of Brazzaville. It is a European creation within the same general region of native culture as that which includes Loango with Mayombe, now a portion of the Maritime Province of the Belgian Congo. Brazzaville is named after Pierre Savorgnan de Brazza, an Italian by birth, who entered the French navy in 1870 and became a citizen of France. He was the first European to visit Stanley Pool, a lakelike widening of the Congo about 200 miles, as the crow flies, from the mouth of the river, after its discovery by Stanley in 1876. The native inhabitants of the region about Brazzaville are generally known as Bateke, which is a nickname bestowed upon them by their western neighbours. *Teke* is a Bakongo word meaning "a human image, a dwarf representation of humanity."¹ According to Johnston, this word "may even come from an old Bantu root meaning 'pygmy,' " and he thinks that the name was originally given to forest pygmies whom the present bearers of it conquered and displaced.² This opinion appears to be merely matter of inference from the name, or rather of a kind of secondary inference from a suspected meaning of the name. In view of the former remarkable artistic activity of the tribes near Stanley Pool, which they share with the natives of the Maritime Congo, it would perhaps be safer to conclude that the name meant, to those who bestowed it, what it seems to mean on the face of it, "makers of images" or, more literally, "image people."

Quite early in the history of Portuguese and other European contacts with the Maritime Congo, repeated attempts were made, chiefly by Jesuit and Capuchin missionaries, to establish Christianity in the hinterland of Portuguese territory. The results may be judged from the words of two missionaries, one Catholic and the other Protestant, the former writing in 1776, the latter a little more than a century later. First, the Abbé Proyard: "The stay of the Portuguese must have altered in a great degree the innocence and simplicity of the manners of its inhabitants. . . . If it be worthy the zeal of a Christian prince to favour the propagation of the faith among infidel nations, it is also worthy of his prudence and his duty not to destroy with one hand what he builds up with the other, by sending on the track of the missionaries a set of men who have

¹ H. H. Johnston, *George Grenfell and the Congo*, II, p. 637 and footnote.

² *Op. cit.*, pp. 803-804, footnote; p. 637, footnote.



Wooden Statuette representing a Nun reading her office. Brazzaville, French Congo.

nothing of the Christian but the name, which they dishonour, and whose worse than heathenish conduct makes the idolaters doubt whether the gods whom they worship be not preferable to that of the Christian religion.”¹

The other passage referred to was written by the author of a work in which the Abbé's words are quoted, W. H. Bentley, a Baptist missionary. He says: “When we reached San Salvador, in 1879, it was to all intents and purposes a heathen land. King and people were wholly given to fetishism and all the superstitions and cruelties of the Dark Continent. Some of the ruined walls of the cathedral remained, the chancel arch and part of a Lady chapel. . . . In a house in the king's compound were kept a large crucifix and some images of saints, but they were only the king's fetishes. If the rains were insufficient, they were sometimes brought out and carried round the town. . . . At the funeral of a *munkwikizi* [scil. “believer” in what remained of their memory of the white man's religion] there were always some special ceremonies, marks of crosses on the shroud, sprinkling of water, etc., which only a *munkwikizi* could perform; they were, in fact, a caste of masters of ceremony at great funerals. . . .”²

Lest it should still be thought that these latter observations are coloured by a Protestant bias, let another Catholic missionary bear witness from a paper read before the Lisbon Geographical Society in 1889. “This résumé of missionary labours in Congo and especially at San Salvador, labours sustained with heroic courage, shows us that these labours did not obtain a worthy recompense. Christianity did not penetrate deeply, it passed like heavy rains, which scarcely wet the first layer of earth, leaving the subsoil dry and sterile. . . . Christianity did not adapt itself to the native, and left scarcely any traditions of its passage among the populations of the Congo. . . .”³

The king of Kongo, whose capital was San Salvador, was in the early days the chief dependence of the Portuguese for securing their dominion in the old kingdom of Kongo. He claimed a sort of overlordship, more of a religious nature than anything else, over the lands north and south of the River Congo between Stanley Pool and

¹ Quoted, from an English version of the Abbé's travels in *Pinkerton's Voyages*, by W. H. Bentley in *Pioneering on the Congo*, I, p. 37.

² *Op. cit.*, p. 35.

³ Father Barroso, resident in San Salvador 1881-1887, later Bishop of Mozambique. Quoted by Bentley, p. 37.

the mouth. But his overlordship was apparently less, if at all, effective among the Bateke of Stanley Pool, who were known to the early writers as Anzichi or Anzico. This name, according to Johnston, is "probably a corruption of 'Banseke,' a term used by the Basundi and other Kongo people near Stanley Pool to describe the 'Bushmen,' the people of the interior." The Portuguese geographers apparently knew nothing of "this lake-like reservoir of the Lower Congo beyond the terraced mountains of the coast" although some "of their traders, and possibly a missionary, may have reached" its shores.¹ Early in the seventeenth century five Portuguese traders did reach the kingdom of the Makoko—the title of the ruler of the Bateke near Stanley Pool, a title which was still used in the days of De Brazza—only to be plundered and made prisoners. Their release was refused to a messenger from San Salvador, and a friar who was sent to ransom them died on the way. A famine and plague which subsequently visited the country of the Makoko convinced him that it was dangerous to detain his prisoners longer and he returned them to San Salvador with compensation for their losses. The intractability of the subjects of the Makoko to their rather distant overlord was known to the Portuguese more than a hundred years before. We are told of an expedition sent out by the King of Kongo in 1491 to subdue "the province of Makoko."²

It was not, then, until after the rediscovery of Stanley Pool that any direct Christian influences reached the people of that region. There is now a Vicariate Apostolic of Brazzaville, occupied by Monseigneur Guichard, from whom the Museum was fortunate enough to secure a small collection of artefacts three years ago. One of these is figured here, a statuette representing a nun reading her office, executed by one of Monseigneur Guichard's flock. It is shown as a striking example of the persistence of negro traditional style in craftsmanship in the presence of alien models and subjects.

The form and the simple decoration of the base on which the figure stands are evidently copied from those of a European statuette. Everything else about the treatment of the figurine is characteristically negro in its largeness and simplicity, its elimination of everything which might confuse the effect of symmetry and balance which is sought for with a single-minded aim. The full, free, unerring sweep of the circle which bounds the upper part of

¹ Johnston, *op. cit.*, pp. 76-77.

² Bentley, pp. 32, 22.

the body confined in its veil, from which every wrinkle has been smoothed away, the simple oblong of the lower portion with the few vertical corrugations necessary to mark the rigid folds of the heavy skirt, the regularly billowed surface of the narrow scapulary with its furrows at right angles to those—everything makes it clear that, though the nature of the subject is such that it demands little simplification, that little has been strictly carried out in accord with the sculptor's own tradition rooted in generations of isolation from the distractions of alien teaching and not to be torn up in a day by any such instruction, direct or imposed merely by the presence of alien models.

The expression of concentration given to the nun as she pores upon her breviary is got through none of those subtle modifications of individual features of the face by which a European artist might accomplish a similar effect. Nothing more simple and direct could have been displayed in an example the furthest removed from possible European contacts. The features are simply squeezed into the smallest possible compass in the middle of the broad round white face bent over the lifted book, and are poised directly over the central line of the opened pages, while to drive the point home, as it were, and to stress, unmistakably, the line of focus thus made almost visible between the two surfaces, a small but very distinct dot of a pupil appears at each *interior* corner of the narrowed eyes.

The veil and scapulary are in the black of charred wood, the robe is in what seems to be the reddish brown of camwood pigment.

A NOTE ON THE CHINESE STELA OF 551 A. D.

BY HELEN E. FERNALD

THIS stela was published in the *MUSEUM JOURNAL* for March, 1923. At that time the scene represented in relief in the top recess under the dragons was described but no attempt was made to identify it. The tablet has since been published in two works on Chinese sculpture but, although the scenes on the sides have been described as illustrations of the Vessantara jātaka, no satisfactory explanation has been stated, hitherto, for the scene in question.

The subject that we see here illustrated can be none other than the "Visit of Manjusri to Vimalakirti." On the left, with his attendants around him, seated cross legged on an inverted lotus throne under a canopy, we see the visitor Manjusri, great Bodhisattva of Wisdom and Thought, known by the Chinese name of Wen Shu; in Japan as Monju. Here he is dressed in the garments of a Bodhisattva and holds the scroll of wisdom in his hand. Opposite him on the right side, and partly facing him, is his host, Vimalakirti the dainty hermit saint, clad in elaborate robes and a warm cloak (for he was an invalid) and holding a large fan in his right hand. The canopy over his throne is hung with curtains which are drawn back and held by bands. Behind him stand attendants. The recent arrival, or imminent departure of Manjusri is suggested by the presence of his palanquin, borne on the back of his faithful lion (his usual attribute) and accompanied by two servants, which occupies the center of the scene. Above are two apsaras, Buddhist angels or fairies, flying down toward Manjusri with offerings in their hands.

The incident illustrated is probably that of the "thunderous silence" related in the Vimalakirti Sutra. The story goes that a host of Bodhisattvas led by Manjusri came to visit Vimalakirti. The saint asked them to "express their views as to how to enter into the Dharma of Non-duality." Some gave one answer, some another. One said, "Ignorance and enlightenment are two. No ignorance, no enlightenment, and there is no dualism. Those who have entered a meditation in which there is no sense-perception, no cogitation, are free from ignorance as well as from enlightenment." Others answered in like manner. "Finally Vimalakirti asked Manjusri, who hitherto



Detail of Chinese Votive Stela of 551 A.D. The Visit of Manjusri to Vimalakirti.

had been silent. Manjusri answered, 'That which is in all beings wordless, speechless, shows no signs, is not possible of cognisance, and is above all questionings and answerings, to know this is said to enter into the Dharma of Non-duality.' Manjusri then asked Vimalakirti to express his idea of Non-duality but Vimalakirti kept silent. Then Manjusri admiringly exclaimed, 'Well done, well done! The Dharma of Non-duality is truly above letters and words.' "

Vimalakirti was an Indian Buddhist saint, a native of Vâis'alî, said to have lived in the time of Gautama Buddha. Mr. Waley describes him as "the patron saint of Exquisiteness" and "lying a fragile hermit in his bare white cell." It is hardly as a fragile Indian recluse that he is represented here, however, but rather as a pleasantly plump Chinese patriarch who does not look at all ill. That this particular saint should have come to be so popular in China may perhaps be explained by the tradition that he had actually visited that country. Also the "Vimalakirti Sutra," or book containing his words, was one of the first of the Sanskrit texts to be translated into Chinese. The translation was made by Kumaradjiva, who worked at Ch'ang-an (the old capital of China, now called Sian-Fu) and translated this and the "Lotus Sutra" sometime between the years 397 and 415 A.D. It is interesting to note that it was during these same years that Fa Hsien, a brother scholar at Ch'ang-an, made his famous pilgrimage to India to obtain more of the texts of the Buddhist books. Doubtless Kumaradjiva, whose father was Indian, whose mother was a Kucha princess and who had himself lived in Kashmir, gave his Chinese colleague minute instructions as to the dangerous route through Turkestan and Udyana into India.

The carving on this stela must be one of the earliest Chinese representations of the Vimalakirti story. It was made some one hundred and fifty years after the translation had made the story familiar. But that Vimalakirti was known and regarded with special favor even before this translation had been made we should gather from the tradition in regard to Ku K'ai-chih's exploit at the Tile-Coffin Temple in Nanking, where, in 364 A.D. or thereabouts, the young painter, then only twenty years old, executed a portrait of Vimalakirti on the wall of a nearby building and raised his pledge of a million cash by charging the people admission to come and look at it. This, however, was a portrait of the saint. The incident of the "thundrous silence" probably became generally known only after the translation of the texts. In later years the subject became

extremely popular as is testified to by its frequent representation on the walls of the cave temples at Tun Huang. The best of these is probably the ninth century fresco in Cave 1 (see Pelliot, *Grottoes de Tonen Huang*, Vol. I, plate 11). Yen Li-pen of the seventh century is known to have painted a picture of the "Visit of Manjusri to Vimalakirti" and the fame of it was such that it has been thought that it established the general scheme of composition which the later artists, such as those who executed the Tun Huang frescoes, followed as traditional; namely, placing Manjusri enthroned on one side and Vimalakirti, likewise enthroned, on the other side to balance, the two figures being of equal importance in the design. The scene on the stela of 551 A.D. shows that this traditional scheme of arrangement is to be traced far back of Yen Li-pen, indeed far back of the stela itself. For whether this carving had as its prototype a painting or another sculpture it is evident that the subject is even here represented in a traditional manner, one already well established by precedent. The story is told with perfect self assurance and the significance of the scene conveyed by the simplest means. It is a subject admirably suited for representation on such a monument as this, both on account of the perfect symmetry of the composition and because the arrangement of the two balanced figures lends itself to the broad top of the stela better than would a design with a single dominating central figure. It is a pleasant variation from the dominant symmetry so powerfully illustrated in the niche below and keeps the eye aware of the splendid breadth of the monument clear to the very top. The introduction of the lion bearing the palanquin is a happy feature not, so far as I know, included in other representations of the subject.

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THE EXPEDITION AT UR OF THE CHALDEES

THE fifth and very successful campaign of the Joint Expedition of the British Museum and the Museum of the University of Pennsylvania at Ur of the Chaldees, the work of which was begun on October 28, 1926, came to a close on February 19th of this year. The discovery of the oldest cemetery, going back to prehistoric times, with its hoards of gold and semiprecious stones and very ancient reliefs, is one of the most remarkable results of this campaign. The news of this treasure reached Dr. Gordon by cable before his death and made him the more happy and confident in the issue of the Expedition.

The Director of the Expedition, Mr. C. Leonard Woolley, had with him Mr. M. E. Mallowan as general archæological assistant and Mr. A. S. Whitburn as architect. Father E. Burrows, S.J., from Oxford, was in charge of the inscriptional material and Mrs. K. Keeling—today Mrs. Woolley—gave her free services in the work of drawing and cataloguing specimens.

The following is from Mr. Woolley's report of the four months' campaign.

L. LEGRAIN

I

A QUARTER OF THE CITY OUTSIDE OF THE TEMPLE

The work began on October 28th. I had engaged a hundred and sixty men, the largest number which in my opinion could advantageously be employed on the site selected, which was the large mound just outside the southwest wall of the Temenos where preliminary borings had been made at the end of last season, bringing to light well preserved house ruins and resulting in the discovery of a number of interesting tablets of a literary nature.



Plan of a quarter of the city of Ur in the time of Abraham.



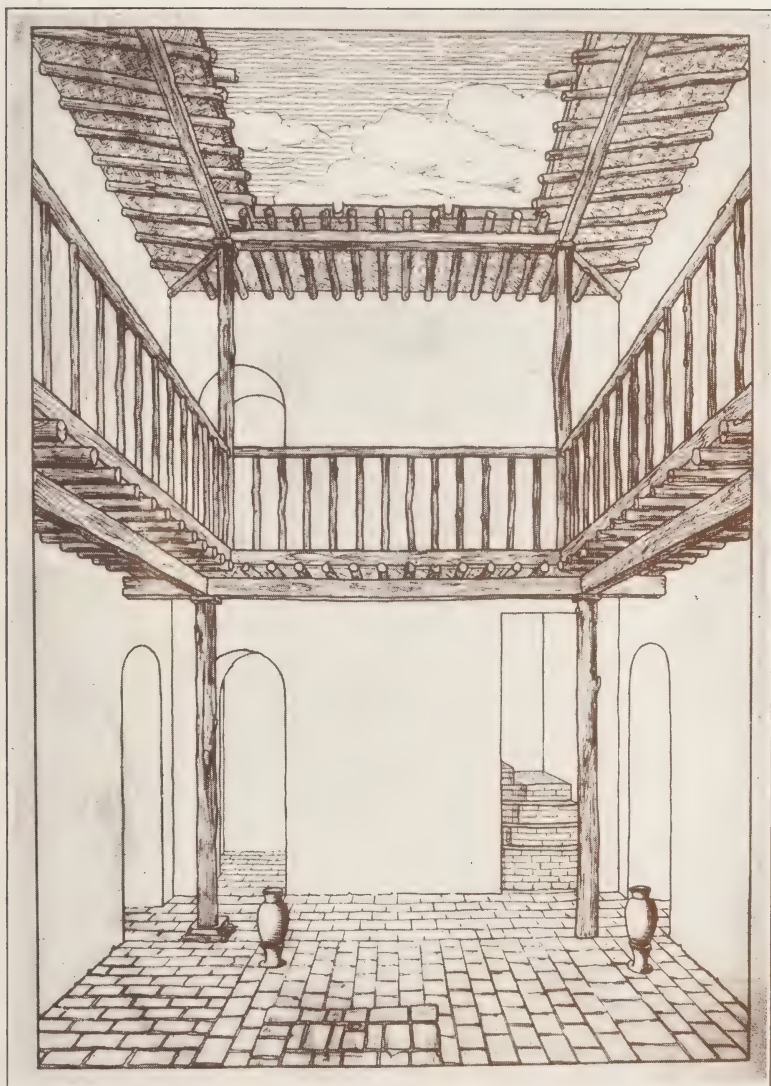
No. 3 Gay Street.

View from the 'li' wan (reception room) and of the central court beyond, with a basin for water in the centre.
On the left is the kitchen.

In spite of the height of the mound—it is almost the highest on the site—the surface had been heavily denuded; of the Neo-Babylonian period virtually nothing remained, and even the Kassite buildings were so ruined as in most cases to be not worth planning. It was only when we reached a lower level that well preserved remains were found. These were private houses of the Isin-Larsa period, about 2100 to 2000 B.C. The floor levels of these lay as much as twenty feet below the surface and work was in consequence extremely heavy, an enormous amount of earth having to be shifted, but the walls were correspondingly preserved and the ruins are imposing in appearance as well as interesting in plan.

The area excavated measures roughly sixty metres by forty. Within this were found a number of houses, large and small, in blocks separated by narrow lanes running more or less at right angles. While the individual houses differ considerably in size and in their internal arrangements, they still conform roughly to a uniform plan, and this plan is of a quite unexpected character. The front door leads through a small entrance chamber to a central court off which open the kitchen, the reception room and various domestic offices, while a brick staircase leads up to the main living quarters. These upper rooms seem to have opened onto a wooden gallery, sometimes protected by a penthouse roof, which ran round the central court and was entered directly from the stairhead. Instead of the low and flimsily built mud huts, consisting of two or three rooms giving off a yard, which characterised sixth century Babylon, we have at Ur in the 20th Century B.C. an almost exact counterpart of the wealthier houses of modern Baghdad.

From the point of view of objects discovered the excavation of the houses was not remunerative. There were graves below the floors of the upper Kassite buildings as well as below those of the Isin town blocks, and these yielded a great quantity of pottery, some good cylinder seals, a few bronzes, but little else. The principal finds were a fine bottle of blue and black glass, Phœnician work of about 1400 B.C., found in a Kassite grave (it was broken in antiquity and incomplete, but has been restored), a pilgrim flask of light blue glaze, also Kassite, a copper adze of the Isin period and a few small gold and silver trinkets. But the outstanding discovery was that of tablets. A few turned up in the same room that produced last season's hoard, and high up in one of the streets was another collection, perhaps the contents of a large storage jar. No. 7 Quiet Street



No. 3 Gay Street.

Reconstruction of the house shown in the preceding view.



View along the street looking southwest, showing the front doors of Nos. 1, 3 and 5 Quiet Street.



Central courtyard showing brick staircase and entrance to the reception room of No. 2 Quiet Street.

gave us the best results of all. Here, on a mud floor of the Larsa period and underneath a wall of a Kassite house, in a heavily burnt stratum, there were unearthed between thirty and forty large tablets which, having been baked by the fire which destroyed the building, were in remarkably good condition; in the next room were a number more (not baked), and below the mud floor in and near the door of a small chamber with a shelf along two of its sides, which had probably been their original storage place, were many more tablets of a slightly earlier date. Only of the set of accidentally baked tablets can anything be even provisionally said. They include hymns, one addressed to Rim-Sin, records of pious foundations by various Larsa kings, the text sometimes in part reproducing known texts on the building cones of the kings, lists of words and phrases, tables of square and cube roots and lists of solid or liquid measurements. On one archaic tablet, not yet sufficiently cleaned to be wholly legible, there is mention of an otherwise unknown king of Ur, possibly one of the rulers of the Second Dynasty of the city. Amongst the tablets which have yet to be fired there are a number which appear to be of a literary character, and it is likely that the collection is by far the most important yet found here.

II

FILLING GAPS IN THE PLAN OF THE TEMPLE

Between the Tomb Mound dug last year and the "Palace" site first excavated by Dr. Hall there was a considerable area about which nothing was known although its denuded appearance did not inspire any high hopes. At the same time it was most desirable to fill in the large gap which it represented on the plan of the Temenos, and I therefore transferred the men to it as their work on the houses drew to an end. In the first hour or two the surface soil yielded a building cone of Libit-Ishtar, a diorite head of a ram, and the forepart and head of a small lion carved in calcite, the base of a statuette of a god. But these good objects had no successors, and the site did not detain us long; it was proved that there had been here a large building of the Larsa period, but it was so completely denuded that even the limits of its ground plan could not be determined and of the interior virtually nothing remained, the interest was therefore wholly topographical.



Children's graves found below the floor of the reception room of No. 5 Quiet Street.



No. 7 Quiet Street.

In the front is the shrine room. In the room beyond, piled on the upper floor level, a hoard of burnt tablets was discovered by the Expedition.

In the north corner of the Temenos there was a wide space of unexplored ground between the Great Courtyard and the line of the northeast temenos wall—the line which in 1922–23 we had failed to trace and therefore had dotted only conjecturally on the plan. Now work here has brought to light a deep and wide recess in the late Temenos wall containing a new gateway, the biggest in the wall's whole circuit: it lines up directly with the entrance of the Great Courtyard and gives a new significance to that building which I feel sure was in Nebuchadnezzar's time the courtyard of the main temple of Nannar. This discovery completed the plan of the late Temenos enclosure and was eminently worth while.

III

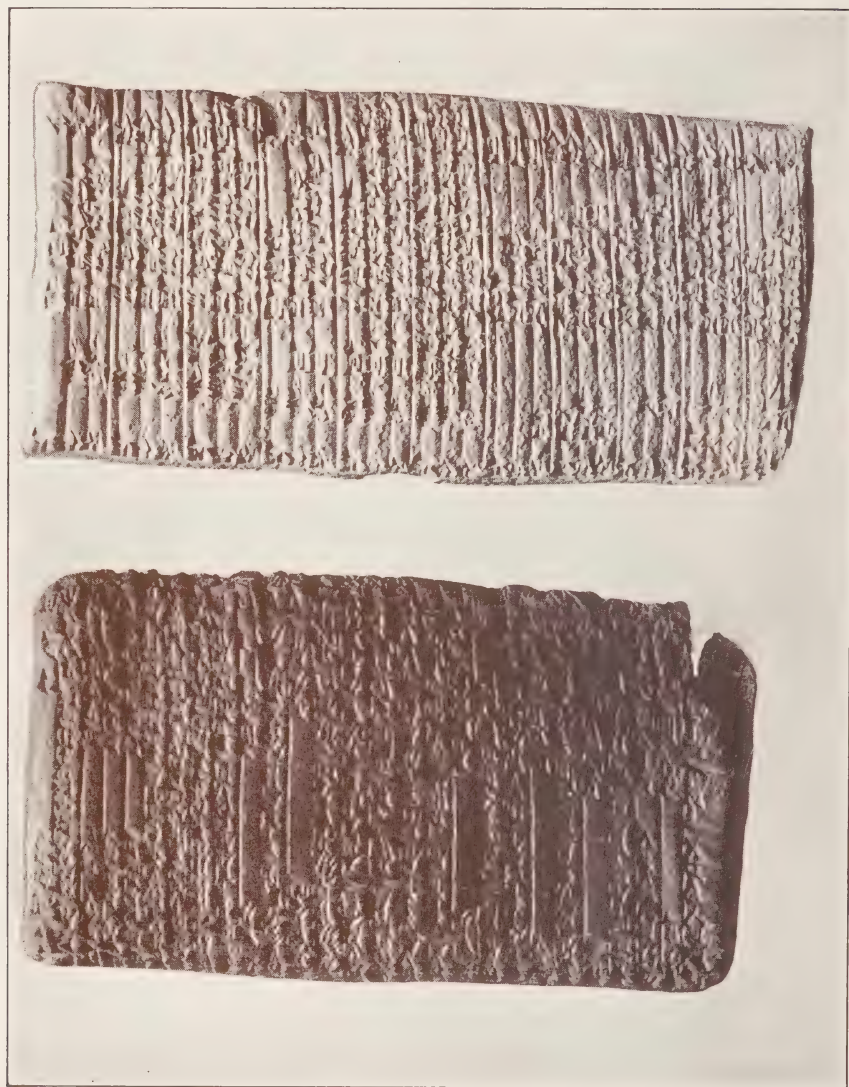
THE LARGE BUILDING AT DIQDIQEH CEMETERY

In the meantime a report from a dismissed workman of the finding at Diqdiqeh of an apparently important building had induced me to send there Mr. Mallowan with a gang to excavate it. The building, which lies on the edge of the cemetery, was found to be a part—only the northwest end remained—of a large and important structure put up by Sin-idinam of Larsa. Its importance lay in the character of the ground plan: there could be no doubt that the building had originally been roofed by means of arches and vaults. Until recently such features would have been considered wholly incompatible with the date 2100 B.C., but the fact that the doors of the private houses of the period were arched and the analogy of the barrel vaults over contemporary tombs justify the assumption of the architectural features which the plan demands. It is also interesting to find that royal buildings exist at a distance of over a mile from the walls of the Temenos; clearly the excavation of the Temenos will by no means exhaust the possibilities of the site of Ur.

IV

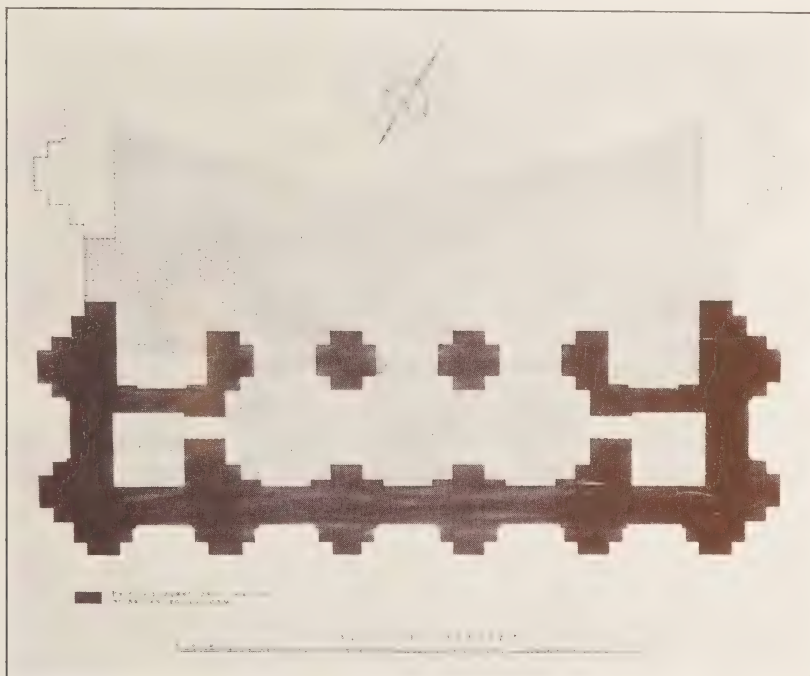
THE FINDS AT E-NUN-MAḤ AND SOUTHWEST OF THE ZIGGURAT

Trenches cut on either side of the newly found gateway in the northeast Temenos wall failed to discover further buildings, and it appeared that in the later periods at least this corner of the sacred area was unoccupied. As the work here drew to an end the gangs were shifted by degrees to E-Nun-Maḥ.



Tablets discovered in No. 7 Quiet Street.
2100 B.C.

When E-Nun-Mah was dug in 1922-23 excavation inside the sanctuary was carried down only to the Neo-Babylonian level, since it seemed a pity to destroy the finely preserved Nebuchadnezzar pavements in what was then our show building. Now the time had come for further work. Fresh light was thrown on the history of the temple by four doorsockets, found *in situ*, bearing inscriptions of Marduk-nadin-ahi, 1117-1100 B.C., a king of whom no record had previously been found at Ur, though his activities fit in well with

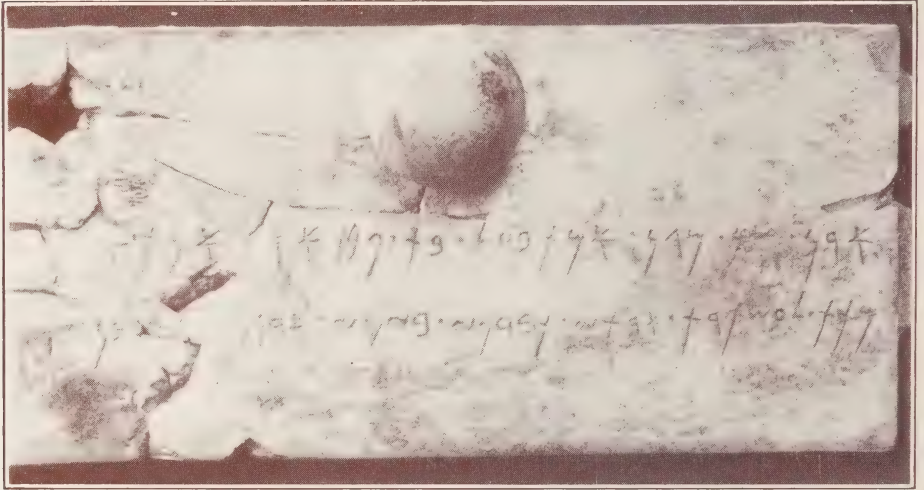


Plan of a large building uncovered at Diqdiqqeh, a short distance from Ur of the Chaldees. This building was probably vaulted.
About 2100 B.C.

those of Raman-aplu-idinnam two generations later. More remarkable was the discovery below the pavement of an ivory box lid with an inscription in Phoenician; I believe this to be the first Phoenician text discovered in Mesopotamia. Also below the pavement we found a whole toilet set in ivory, certainly Phoenician work; the best objects included in it were a small paint pot in the form of a sphinx, closely resembling a column base from Assyria now in the British Museum, and a comb having on either side an engraving of a bull, extraordinarily fine both in design and in execution. There also was

found a brick with an inscription in a script which we have not been able to identify.

From E-Nun-Mah the gang was transferred to the southwest face of the Ziggurat. The original excavations here had gone down only to the Neo-Babylonian level, and Mr. Mallowan's work at the end of last season, when he discovered walls of the Third Dynasty and earlier, still had to be completed. I was also anxious to obtain material for a full plan of the surroundings of the Ziggurat in the Third Dynasty and Larsa periods, with a view to complete publication.



Ivory box-lid with Phoenician inscription: from E-Nun Mah, the treasury house of the Moon God.

This work is now almost finished; the plans of the southwest side are being drawn up by Mr. Whitburn and only a few details may have to be ascertained by further digging. One good object turned up in the Ziggurat work, a complete diorite duck weight with an inscription of Dungi.

V

THE OLDEST UR CEMETERY

FIRST DISCOVERY

On the twenty-sixth of November most of the men were moved, this time to cut a long and deep trial trench across the unexplored part of the site lying between the southeast wall of the Nebuchadnezzar Temenos and the heavy buttressed wall running southeast



Ivory comb (obverse) and lid of powder box from E-Nun-Mah,
700 B.C.



Ivory comb (reverse) and stone paint pot from E-Nun-Mah.
700 B.C.



Stone duck weights: one with an inscription of King Dungi.
2200 B.C.

of the "Palace," which I believe to be itself the boundary wall of the earlier Temenos. The trench showed that the greater part of the area between E-Ḫarsag and the southeast wall of Nebuchadnezzar's Temenos had never been occupied by buildings—most of it was an open mud-floored space—thus strengthening the theory I have previously formed that the older Temenos did not include this area but stopped short at the retaining wall of the E-Ḫarsag terrace; but towards its northwest end the trench produced groups of pottery and tombs resembling those found in the neighbouring trench dug in the first weeks of our first season here. Further to test the ground I started a second trench roughly at right angles to the first and extending to the corner of the southeast gate of the late Temenos, and almost at once hit upon more graves of so interesting a character that the excavation of the whole area was obviously necessary. The graves at the southeast end of the Temenos, of which we had at the end of December excavated 180, are in every way remarkable. They are found at all depths from half a metre to four metres and a half, but though there is naturally some difference of date between them, all are very early.

Some of the burials are in clay coffins, circular or oval, the former are always empty, the latter poor; most of the bodies were wrapped in matting and laid in the earth with or without a ritual burning. These graves are often extremely rich.

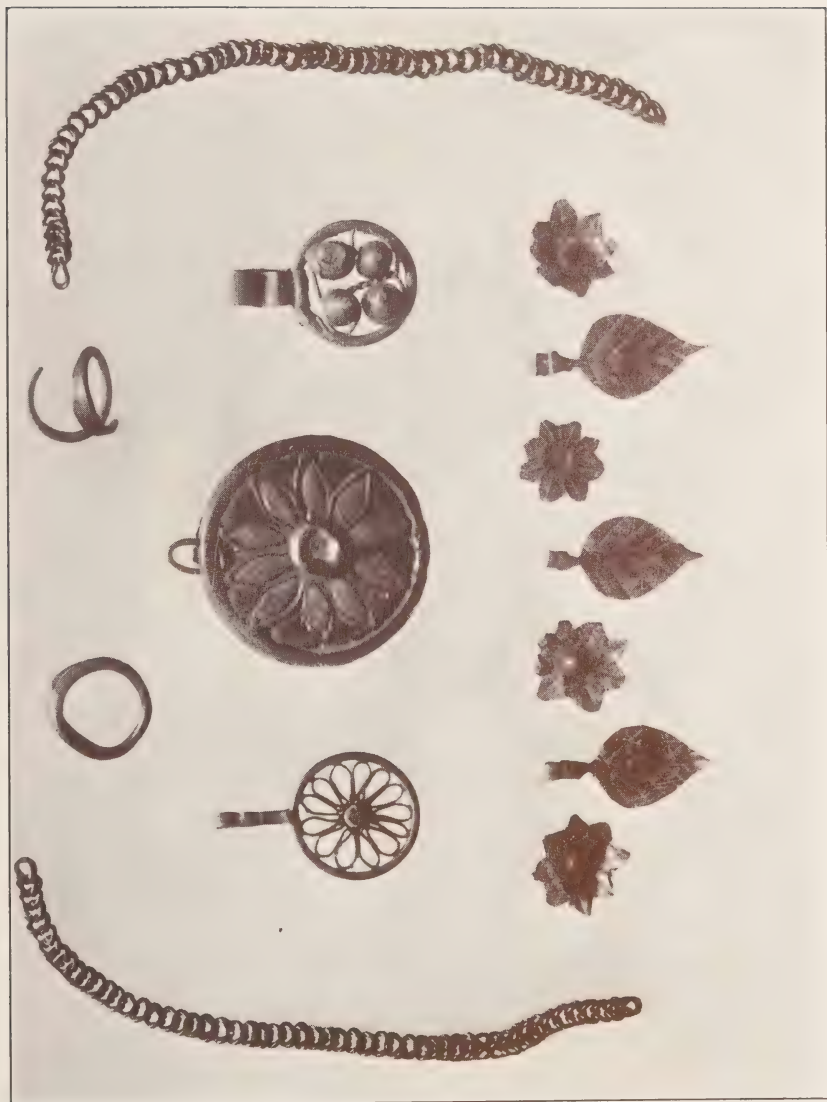
The clay pots are very numerous but not, for the most part, very interesting, the best are the tall offering tables of clay (examples in limestone also occur) decorated with incised patterns; one has applied figures of stags. Of stone vessels we have some eighty examples, representing a wide variety of types and a good range of materials, decoration is rare and when it occurs simple, and only one piece is inscribed with the name of its owner, but they form a very fine collection. Copper is most abundant: bowls and large pots occur frequently, also strainers of a curiously classical form. Owing to the thinness of the metal the last are often in bad condition, but well preserved examples are occasionally found. The copper tools and weapons are most interesting: we have quantities of axes, adzes, spearheads, daggers and knives, toilet reticules, some of which could be polished up and used today. The variety of types is great and affords admirable material for study. But the novel feature of these graves is their richness in jewellery, we have already a wonderful collection of objects in gold and silver, lapis lazuli, carnelian and shell.



Uncovering graves in the earliest cemetery at Ur.

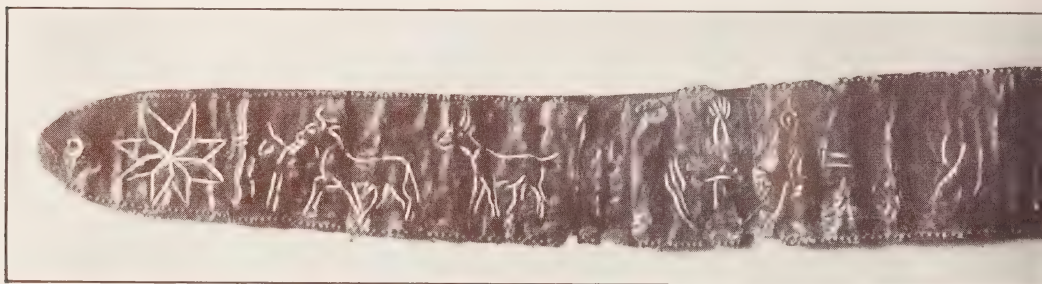


The early grave in which were found the paint pots, gold diadem, and ornaments of gold and silver and semi-precious stones.
Prior to 3000 B.C.



Examples of gold work from the early cemetery.

Long pins of copper or silver with heads of lapis set in silver or gold are common; beads are astonishingly numerous and vary in size from the minutest rings running three or four to a millimetre to lentoids of gold and stone eight and a half centimetres long; earrings of silver and gold were common but are simple in design, as are also the finger-rings—generally a spiral coil of fairly thick wire—but the earrings make up for their simplicity by their size, being as much as four centimetres across. One curious object is a large silver head ornament in the form of a lotus on a long stem, the ends of the petals decorated with balls of lapis and gold; it was one of a pair worn against the ears and rising over the head after the fashion of ornaments shewn in early carvings. A chain of very fine gold links set with lapis has a parallel in a silver chain unfortunately poorly preserved; it is a strangely modern looking piece. A small gold statuette of a seated bull wearing a false beard tied under its chin, the bull



Gold diadem found in the tomb shown on page 140

deified, is a fine example of the goldsmith's work. Of the gold diadems the best has elaborate decoration in outline impressed in the thin metal, men and animals very delicately drawn, stags and rams, a hunter returning from the chase with his gamebag, a man riding and another driving beasts. In shell we have a very good carving in the round of a bull, and, more unusual, an actual shell made into a duck with a stone head, the colours of the breast represented by incrustation in mother-of-pearl and lapis on a bitumen background; an ostrich shell similarly incrustated, but unfortunately in bad condition, shows that the technique was normal. Not from the cemetery but resulting from a chance find is an excellent shell plaque with an engraving of a priest at sacrifice, still retaining traces of the red and black colour with which the engraved lines were filled. It is perhaps the best shell engraving yet found.

Cylinder seals in white shell, steatite, lapis lazuli and rock crystal occur fairly frequently; amongst them are some particularly fine specimens, including two of crystal with copper caps wherein the hole through the center has been filled up with white and scarlet paste to form a series of chevron patterns visible through the crystal walls. Generally the style of the cylinders is what would be called Sargonid or pre-Sargonid, which is surprising if the tombs are really as early as the Farah analogies suggest.

IV

RICH GOLD FIND

THE DATING OF THE TOMBS

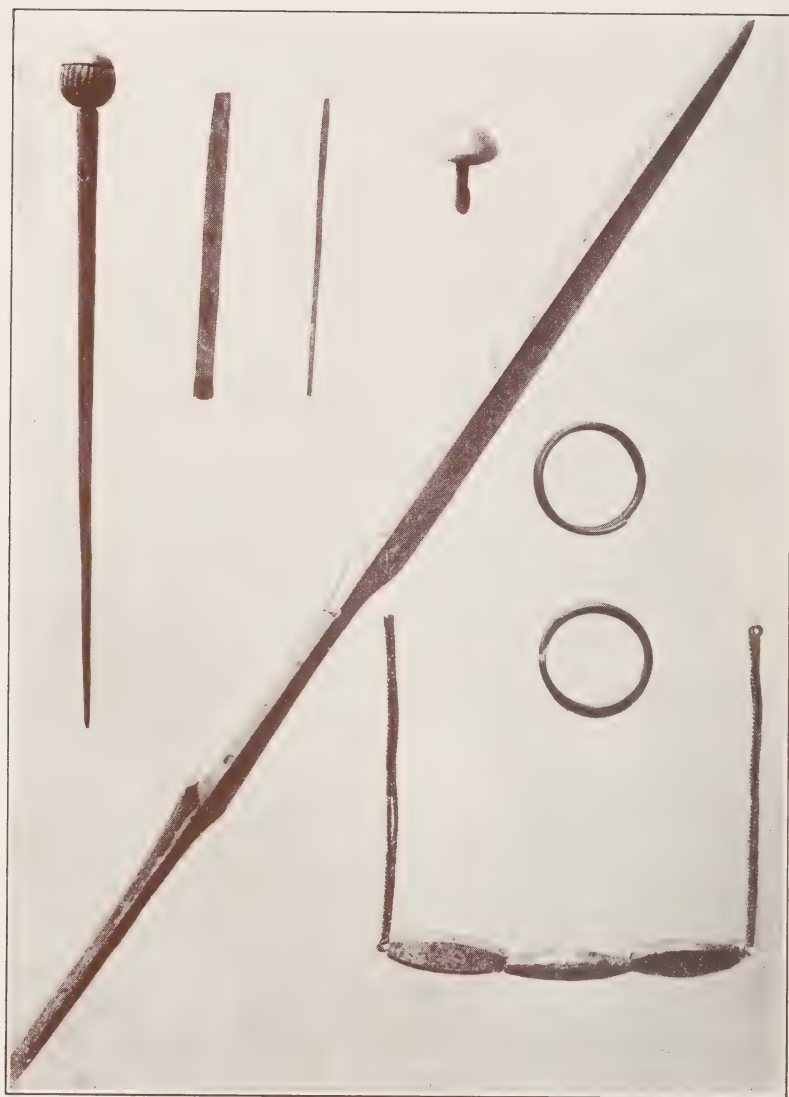
The work of the Expedition during the month of January fully justified the confidence inspired by the success obtained at the end



about B.C. 3500.

of the previous month. At that time we had just discovered a cemetery of a period earlier than any of the city's buildings yet laid bare; now a considerable area was systematically explored and over four hundred graves were found, and every day of the month added to our collection fresh monuments for the history of an age hitherto unknown.

It is now possible to say definitely that the period covered by the main cemetery lies between 3500 and 3200 B.C.; in other words, we have gone back of the First Dynasty of Ur, the historical existence of which was first proved by the discoveries made by this Expedition three years ago, and are in that nebulous epoch assigned by ancient Sumerian chronologers to a dynasty of kings of Erech who reigned for periods that make Methusaleh look young. That Ur was already then a royal—though not an imperial—city is shown by the names of kings engraved on their cylinder seals; that the



Gold pin with lapis head, gold chisels, nail, spear, earrings, and gold and lapis diadem.

country, divided up as it must have been into a number of city states, had already achieved a high level of culture and enjoyed a certain uniformity of civilization is made clear by the character of the objects found in the graves, and by the analogies which they present to the contents of more or less contemporary tombs excavated by Mr. Mackay at Kish, a hundred and fifty miles away in the North. Indeed the state of civilization illustrated by our discoveries is



Gold vanity case with its contents.
About 3500 B.C.

astonishing and, though it does not settle the question, throws new light upon the old dispute as to whether the civilization of the Euphrates or that of the Nile valley can claim the priority in time; our cemetery belongs to the period when Menes was establishing the First Dynasty of Egypt, and already writing is here no less advanced than on the Nile, and the technique of the arts and crafts is definitely superior. The unification of Egypt in about 3400 B.C. is marked by the appearance of new art forms and methods which seem to have



Dagger, with gold sheath and hilt of lapis and gold, found in the cemetery.
About 3500 B.C.

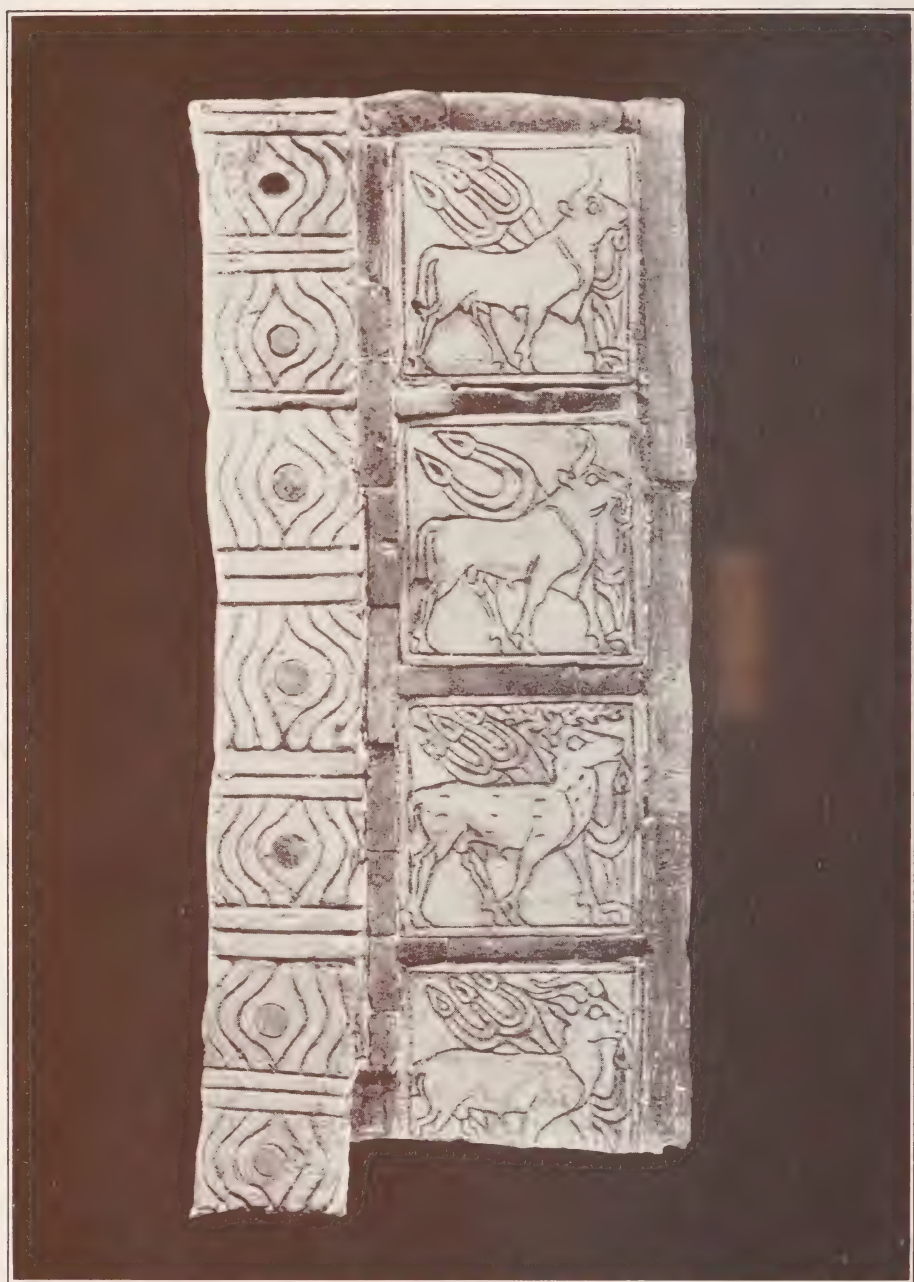
been introduced from abroad or at least modified by foreign influences; the contemporary civilization of Mesopotamia is no less evidently the outcome of steady development in the country itself, and since change was demonstrably slow the origins of that civilization must go back to an immemorial antiquity.

The graves themselves are simple enough. In most cases the body, fully dressed, was wrapped in matting and laid on a mat spread



Shell carvings and engraved plaques. Used as inlays.
About 3000 B.C.

over the bottom of the tomb shaft; personal belongings, jewellery, etc., were placed with the body, and between the hands or against the mouth was set a cup of clay or copper which presumably contained drink, just as a cup of water is often set over a modern Arab grave so that the dead man may wet his tongue before replying to the cross-examination of the recording angel. Against the roll of matting were placed other clay or metal vases containing food and



Set of engraved shell plaques colored red and black, set in a frame of pink limestone and lapis.
About 3000 B.C.

drink, more matting might be spread over the top of these, and then the earth was flung back into the pit. In some cases a fire was lit against the head of the dead man, and body and offerings were partly consumed before the grave was filled in, but the custom, clearly a survival of cremation, was already dying out, and in the later graves we find little or no trace of fire. In the higher levels a square wicker-work basket or coffin is sometimes substituted for the simple matting of an earlier age, and wooden coffins have been found, though such seem to mark a distinction in wealth rather than in date. Throughout the whole period we find, side by side with the inhumation burials, bath-shaped clay coffins whose furniture, though generally poorer in quality, is uniform with that of the matting tombs. It is tempting to assume that here we have evidence of the mixture of races, Sumerian and Semitic, which throughout the historical period characterises the Euphrates valley. In many of the graves the head is found to be resting on a pile of clean sand: the modern Arab of southern Mesopotamia has no such practice, but in northern Syria whenever a man is buried a basketful of clean sand, fetched if possible from the river, is spread beneath his head, and the parallel may well be one argument more for an early cultural connection between Sumeria and the North.

What strikes one most is the degree of wealth and comfort evinced by the graves. The pottery indeed is coarse, but that is precisely because, with better materials at hand, pottery was cheap and little regarded. For other than the most utilitarian purposes vessels were made of fine stone, alabaster or coloured soapstone, of copper or of silver, and the shapes of these show an astonishing variety and an admirable understanding of form. For ornamental purposes silver and gold are very common, the latter is sometimes used in the form of thin leaf laid over copper, but sometimes is solid and heavy; a "manicure set" of tweezers and prick in solid gold has a curiously modern look, and so have the heavy gold chains found in several graves. Gold beads of various shapes are most numerous, and we have such refinements of jewellery as a necklace of two rows of lapis lazuli beads with gold flower rosettes set at intervals and gold mulberry leaf pendants, gold pendants of filigree or of cloisonne work inlaid with lapis and carnelian, or triangles formed of a number of small gold beads soldered together which alternate with triangles of lapis and carnelian beads. Beads of stone and gold two and three inches long made a sort of fob, hanging from

the belt, to which was attached a little whetstone, a very necessary article, one may imagine, when tools and knives were but of copper and would require constant sharpening. Rich people wore diadems of gold tied round the head with twisted gold wire; rings of gold and silver are found on the fingers, and sometimes copper rings on the toes. In one grave there were several yards of narrow ribbon cut out of thin gold plate, but it did not lie on the body and so one



Engraved shell plaque. A scene of libation.
3500 B.C.

could not tell how it was worn. A belt might have been adorned with large square beads of gold and coloured stone, and big round buckles of silver filigree not unlike those of present day Armenia may have secured a cloak.

Naturally the bulk of the objects from the graves is of this personal sort, articles of use or adornment, but other things also occur: a panther's head carved in white shell with eyes and tongue inlaid in colour, little plaques of shell with engravings of animals, perhaps from the sides of some jewel casket, inlaid gaming pieces, a whip handle in shell and black stone, and, most remarkable of all, a



Limestone stela in two registers. The lower register shows a procession of Sumerians with the earliest known type of state chariot. This is drawn by four lions, the seat is covered with a leopard skin and the weapons of warfare are carried in the front of the chariot.

fragment of a limestone relief—probably the earliest Mesopotamian sculpture known—which may well portray the funeral procession of a prehistoric king. The relief shows a chariot drawn by four lions, it is empty, and the reins are held by a man who walks behind, while another guides the way in front and a third follows carrying some kind of burden. Over the car is thrown a leopard's skin and to the front



Tablets found in the early cemetery of Ur, the oldest antedates 3000 B.C. One gives the name of an unknown king of Ur. The others are business documents, survey of land and measures.

of it are tied spears, a quiverful of arrows and a battle axe, the panoply, perhaps, of the dead ruler. It is an extraordinarily interesting fragment, and if its subject be rightly interpreted by us gains in interest yet more from the fact that on two of the exquisitely engraved cylinder seals which the cemetery has produced there are inscribed the names of kings who ruled at Ur, and they may have been buried in these very graves, before the city's history began.

VII

THE CEMETERY OF PREHISTORIC KINGS

GOLD JEWELS AND ARMS

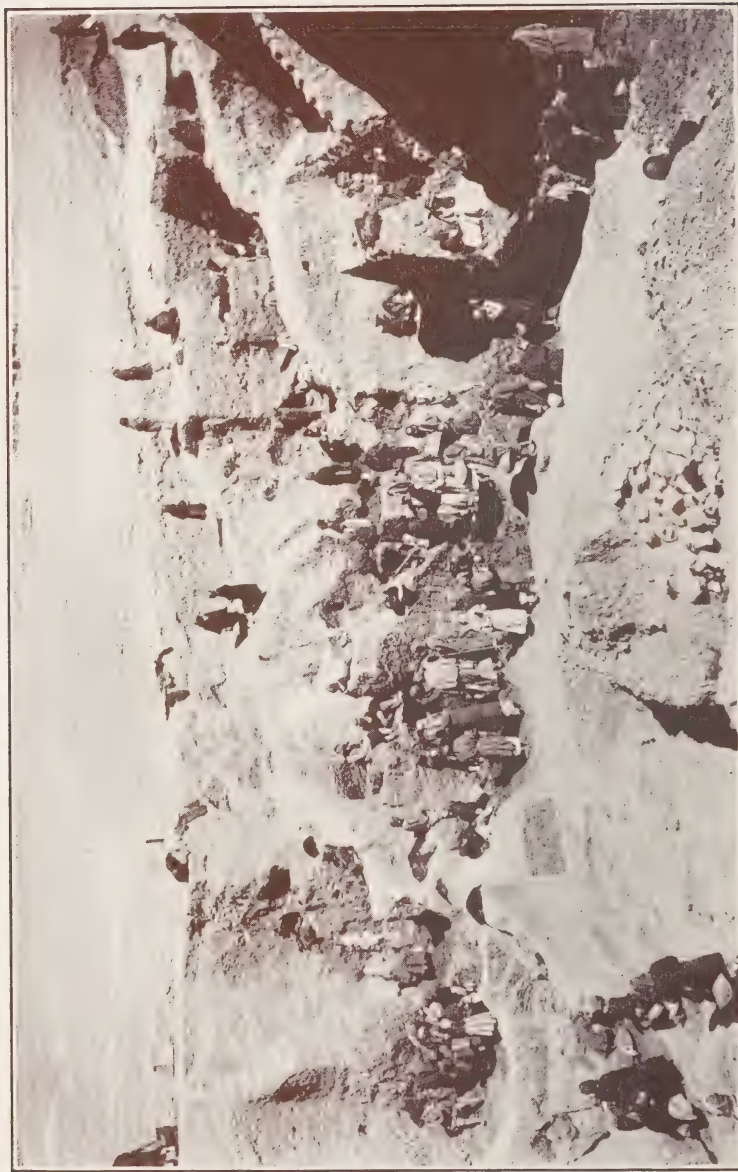
As the clearing of the cemetery proceeded the stratification of the graves became more obvious, thanks to the different configuration of the soil in antiquity, and it was possible to obtain a relative dating which, though it agrees with the views I had formed previously, can now be considered certain instead of hypothetical. A proper analysis of the contents of the graves will in time produce more



Shell lamp in the form of a duck with stone head. Inlaid with lapis and mother-of-pearl.
3000 B.C.

detailed information, but we can already get a very good perspective of the history of the site.

In two graves found close to what was the surface of the ground in the Third Dynasty (a level which had been denuded from the part of the cemetery area dug earlier in the season) we obtained cylinder seals of members of the household of that daughter of Sargon of Akkad who dedicated the circular calcite stela found last year. The furniture found with these cylinders seems to differ considerably from that of other graves. From a plundered grave also on the top level came the lapis lazuli cylinder seal of the wife of Mesannipadda, first king of the First Dynasty of Ur. In the top stratum therefore



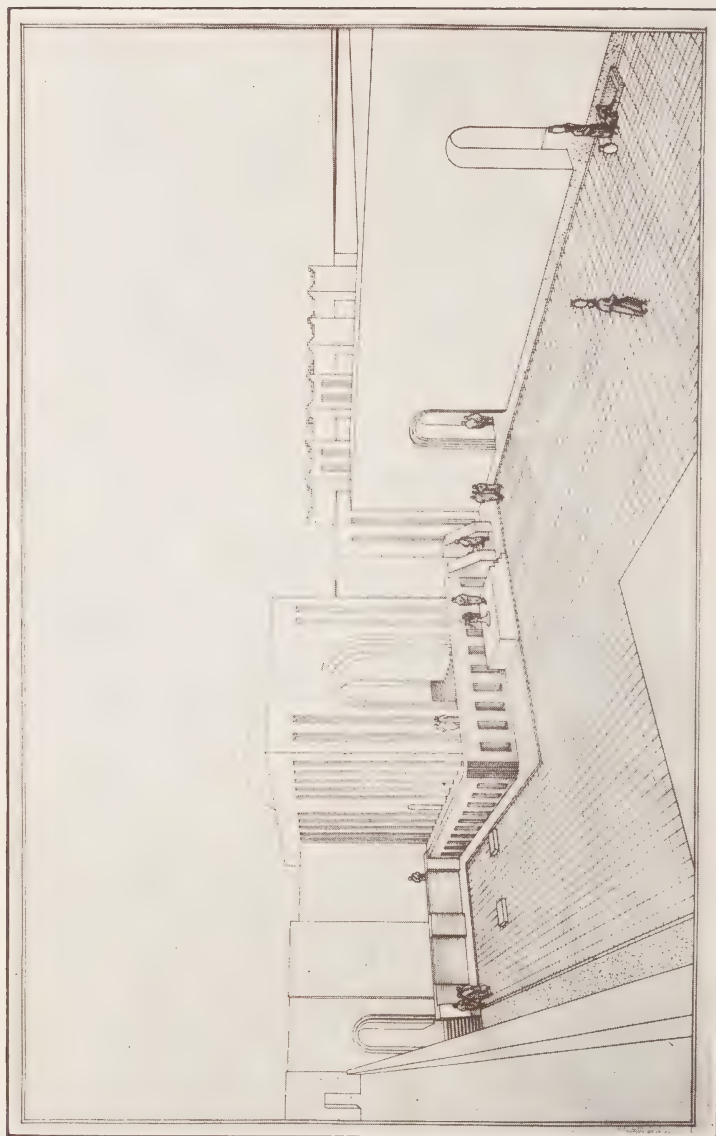
The last day's work in the cemetery at Ur. Here was found the gold treasure: the gold dagger, the spear, and the adze.

we have either the remains of two periods, or of one period ranging from 3200 to 2600 B.C. Comparison with the al Ubaid graves makes it fairly clear that the former alternative is the correct one, and that the site was used for graves before and up to the First Dynasty, and then after a lapse, reused in the Sargonid period. The next stratum contains graves of a uniform character from which we have obtained two cylinder seals giving the names of three prehistoric kings of Ur. Then, after a barren stratum, we reach at about five metres depth from the present surface, a new series of graves distinguished by cylinder seals of the most primitive types, by semipictographic tablets, and by an astonishing wealth of gold. These graves cannot be much later than 3500 B.C.

One of the finest objects found consists of a set of four shell plaques engraved with animal subjects and four with linear patterns framed in pink limestone and lapis lazuli. In some ways more remarkable, though of less artistic merit, is a gaming board consisting of twenty shell plaques with engraved linear designs inlaid with lapis and red paste; the plaques are framed in lapis and the whole board is bordered with ivory, lapis and mother-of-pearl. The wood and the bitumen which had held the plaques had perished, but the gaming board was finally removed in one piece and when remounted and cleaned will look extraordinarily well.

Of the gold objects found early in the month the best were a heavy diadem of gold decorated with a star, the gold wires for tying it round the head still attached, and a minute but beautifully worked figure of a pigeon in gold with a lapis tail.

At the very end of the season we came, at a depth of nearly six metres, on something unlike any tomb yet found, in that over a space measuring some seven metres by four there were spread two layers of matting between which was a great hoard of objects in copper and in gold. I am not yet sure whether it was really all one tomb (no trace of any body was detected) or a group of votive deposits, or a group of offerings made at a grave which itself has yet to be found. At one end of the area we discovered a large collection of copper spears and chisels, two gold chisels and a full size gold spear-head. These lay at the edge of our trench and to advance the work heavy digging was required. At first this seemed unproductive, only one lapis cylinder seal being found, but on the last Saturday of the season the area began to yield quantities of plain gold binding from what had been wooden handles covered with gesso and painted



The Court and the Main Shrine of the Moon God, called E-dublal-mah, or Court of Justice, in the time of Kuri-galzu II. 1400 B.C.

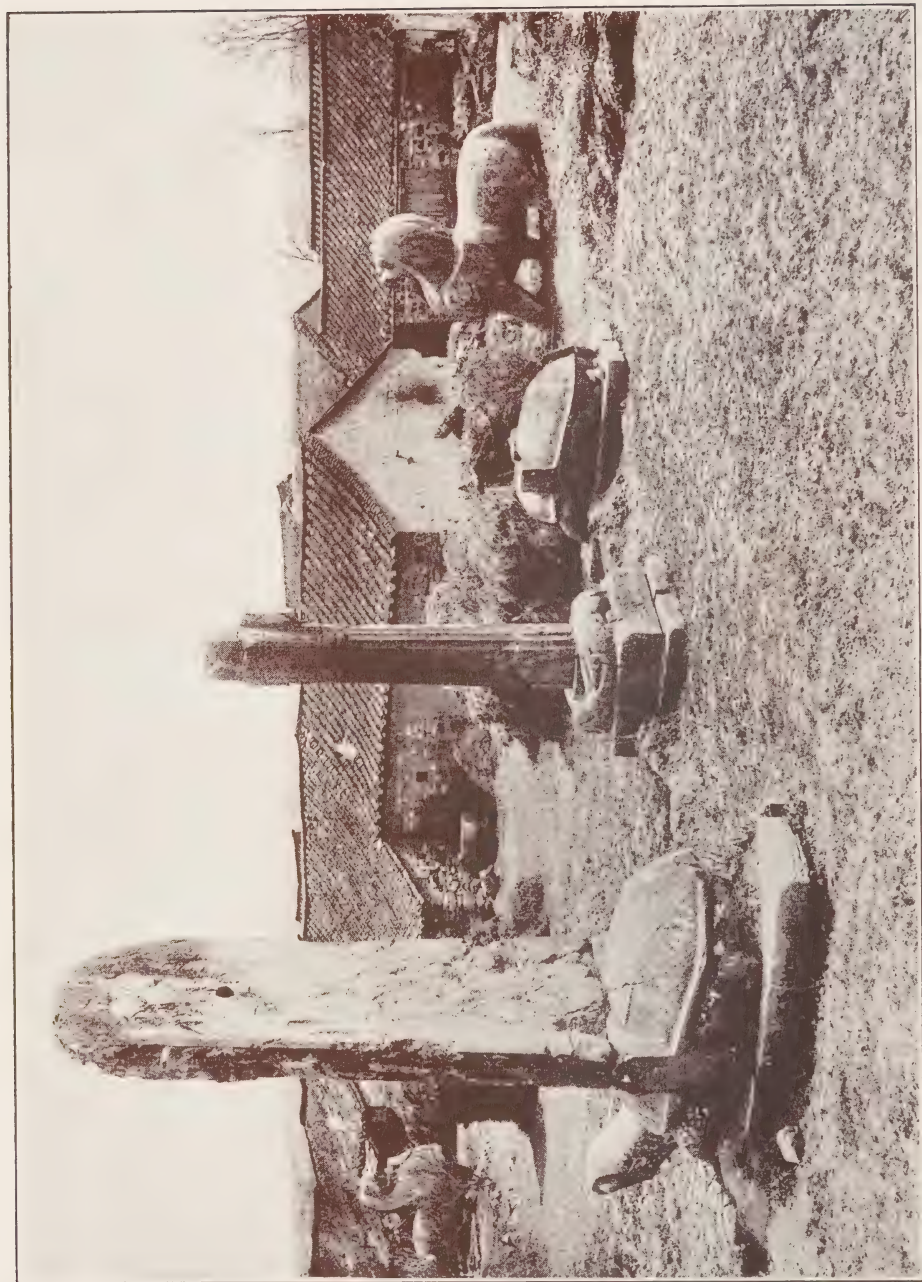
The drawing, made by A. Whitburn, shows the arched gateways as found and his restoration of the dome.

red, so when work as a whole ceased I kept on ten men to finish out the place. In the course of the next two days we made the best discoveries of the year. There were found bundles of copper spears, quiverfuls of arrows of various types, and about forty curious copper objects like small helmets, but as they contained traces of wood it was evident, apart from their size, that they served some other purpose which I cannot determine. In one spot there were scattered a great number of beads of carnelian and lapis and gold, together with gold pendants of different types. Close to them was a gold adze with the gold binding of its red wooden handle capped with silver, a very fine piece. At some distance from these there lay a broad silver baldric (again with no sign of any body) to which were attached a cylinder seal of white shell much decayed, a "vanity case," and a dagger. The vanity case was of gold, decorated with applied filigree work, and in it, held together by a silver ring, were a pick, tweezers and spoon, all of gold. The dagger was even finer. The handle was a single piece of richly coloured lapis adorned with gold studs, the guard of gold filigree, the sheath was all of gold, the back plain except for two bands of beading, the front entirely covered with exquisite filigree of admirable design. It is in perfect condition, the finest object yet found in any Mesopotamian excavations and one of the earliest known examples of working in gold, dating as it does from about 3500 B.C.

VIII

THE CAMPAIGN'S CONTRIBUTION TO EARLY HISTORY

The Expedition has now brought to an end its fifth season. Once more we have carried back the history of the city and of the land into periods for which there existed no records, and now we are able to picture in detail the civilization of Mesopotamia as early as 3500 B.C. What is truly surprising is the wealth and the high level of culture of that remote time, and the farther we go back the more elaborate and the more finished seems to be the art of Sumeria. In the last three weeks we have found cylinder seals bearing the names of no less than five early kings of whom three were unknown to history, while the other two have afforded accurate dating for our graves; we have discovered the finest and the earliest examples of gold work known from Mesopotamia, amongst the earliest in the world, and we have good reasons for expecting at the beginning of next year's work results even better than those hitherto obtained.



Winged Lions and other Sculptures of the Tomb of Hsiao Hsiu, d. 518 A.D., Brother of Emperor Liang Wu Ti, as they appear standing among the Houses of the Village of Kan Yu-hsiang, Yao Hua Men, near Nanking. From Segalen, de Voisins, et Lartigue.

TWO COLOSSAL STONE CHIMERAS FROM A CHINESE TOMB

BY HELEN E. FERNALD

A FEW years ago the attention of archaeologists was called to the remains of an old cemetery about six miles south of the city of Nanking where rulers of the Southern dynasties of Sung, Ch'i, Liang, and Ch'en had been buried in the fifth and sixth centuries A.D. The tomb mounds themselves had disappeared for the ground had long ago been levelled for cultivation, but here and there, standing among the houses of the tiny village or half buried in the mud of the barley fields near by, were the forms of huge stone lions and chimeras, shapes battered and weather worn but still full of majestic dignity and power. These stone animals, together with a few of the columns and tablets which once formed a sort of court in front of each mound, are all that remain of at least twelve princely tombs.

Père Mathias Tchang wrote about these "Tombs of the Liang" in 1912. In 1917 M. Segalen visited the region and studied the sculptures very carefully, taking many fine photographs which have since been published. The discovery of these great stone beasts still standing guard, although the tombs themselves no longer exist, has thrown a new light upon the story of Chinese sculpture and has proved that the ages before the advent of Buddhism were not devoid of stone monuments but produced works of art worthy to rank with those of other countries. Recent discoveries are bringing forth conclusive evidence that, long before the religion of Buddha swept through China, inspiring thousands of Buddhist statues, there had flourished what is called the school of early animal sculpture, which had been much influenced and contributed to by contact with the art of Central Asia and the far west during the Han period but which had its roots back in the earliest prehistoric culture of China itself. The climax of this early animal art, at least as regards work in stone, was reached, apparently, in the fourth or fifth centuries. The sculpture of the Liang tombs seems to represent the peak and the beginning of the decadence of the style, just before it merged with Buddhistic art.

Two enormous stone animals similar to those of the tombs at Nanking are now in the University Museum, where they have been acquired for the permanent collection. They are probably the largest pieces of stone sculpture that have ever been brought out of China. One recognizes immediately their close relationship to the winged lions and chimeras of the Liang Tombs. They represent a pair of animals, one male, the other female, of the winged, horned, lion-griffin type, chimeras they may be called for want of a more accurate name, for their like has never been known to Zoölogy. They are standing; or perhaps it would be more correct to say running, for the position of the stumps of the legs would seem to indicate this, and besides, every line of the body contributes to the impression of tremendous forward motion. They are, or were before the loss of their legs and tails, about nine feet long and must have stood seven feet high above their pedestals. These chimeras are splendid majestic creatures with lithe horse-like bodies winged at the shoulders, enormous bulging chests, powerful arched necks that proudly carry huge horned heads, and tails thick and heavy like those of lizards. The legs were probably like those of the Liang Tomb animals, short and stocky with large clumsy cat-like paws, legs designed to carry the heavy weight of stone above.

The heads are of a type most extraordinary. The skull is squarish and high and the face rather flat with round bulging eyes, pug nose, and puffy cheeks. The huge square jaws open in a ferocious grin which discloses strong canine teeth of which the points are now broken off. A beard hangs like a broad ribbon from the chin and forms a slight flat scroll on the chest. Just behind the eyes the ears appear like funnels clipped in front, with rings on the stem of the funnel to indicate that the ears were horny near the base. Most interesting are the horns. They spring from the top of the head and extend straight back, lying on the skull and following its curve to the neck. Where they emerge from the skull they are fairly large and are ringed with lines as if to represent a hard substance, the rest appears to be soft and smooth, tapering to a slight knob at the end. The female has two of these horns lying parallel on her head, the male has only one. Another difference between the two is in the decorative treatment of the great bulging chest. In the male the lines which form a sort of broad ribbing over the chest run vertically from the neck down over the front, while in the female they run horizontally over the breast, curved like necklaces.

Both sculptures have lost all four feet and part of the leg above the foot, tails have been broken off a few inches from the body, tips of horns are missing, ends of ears, and even the point which extended back from the jaw. In spite of all this, however, the great bodies are full of rhythm. What Dr. Siren says of the Liang Tomb animals is true also of these and even to a greater degree, "The long sweeping lines are alive with a tremendous energy which is rolled up, so to speak, in the spring like ornaments at the wings and the loins." The modelling is of the simplest kind, big and broad and displaying no particular knowledge of anatomy—except indeed in the treatment of the muscles at the haunches. All is subordinated to the great springing curve of the animal as a whole and to the impression of massive strength it conveys. These chimeras were designed on lines suggesting irresistible forward motion; their huge chests plough ahead like the bows of ancient war vessels, "Viking ships" is Dr. Siren's comment. All these beasts were intended to be seen from a distance. As long as the eye could distinguish them it would receive the impression of swift sure power conveyed by the very outline of them. At close range each detail is seen to contribute to the fundamental idea. In the two chimeras at the Museum the wings are very small, merely "a concession to the animal's ancestry" as Mr. Ashton says of the wings of one of the Liang tomb lions, but these rudimentary appendages add greatly to the feeling of rhythm by repeating the curves of chest and of back and concentrating the force of line as if in a huge steel spring. Flat scrolls and volutes radiating from the spine decorate the surface and go to enforce the sweep and movement of line.

As has been indicated, the chimeras of the University Museum are very evidently of the same type, tradition, and general period as those of the tombs at Nanking. But they did not come from that region. Information with them states that they are from Honan, a fact borne out by the material of which they are composed which is the hard grey stone of that province. There is no doubt that they have stood out in the open for centuries, abused and neglected, for they have weathered a light grey and the surfaces are worn and storm beaten and spotted minutely by moss and lichens. When found only their heads and backs were visible above the ground which seemed to be slowly swallowing them. Probably the feet and pedestals are still in situ, buried close by.

We know nothing now about the tomb which these beasts guarded but from the close similarity which they bear to the animals at Nanking we should conclude that the other arrangements may have been the same.

What were the tombs at Nanking like? M. Segalen found that each grave had consisted of the usual tomb chamber covered with a mound of earth. These mounds had been levelled. But of the more unique feature of these Liang tombs a good many remains could still be seen. This feature was the short avenue leading to the mound, an avenue bordered by eight sculptures (this was the typical number) in pairs facing each other across the way of approach. First came the pair of great stone chimeras or lions, one on each side, then a pair of stone stelae carried on the backs of sculptured tortoises and bearing the name and titles of the deceased, then a pair of fluted columns with mushroom capitals supporting figures of lions or chimeras, finally another pair of stelae. The avenue was so short and wide that the result was more a square plaza or court in front of the mound than a long road lined with statues such as became fashionable later, in Sung and Ming times. The famous avenue of the Ming tombs north of Peking, 15th to 17th century, is, of course, a development of this same burial tradition, but the idea of the approach is carried to great elaboration and as for the statues of animals, the Ming examples are stolid and lifeless stones as compared with these glorious rhythmical creatures of the Liang tombs. The Liang scheme must have developed from the simpler custom of the Han dynasty, of placing a pair of animals face to face in front of two gateway pillars which stood before the burial mound. Such was the arrangement in front of the burial mound and chapel in the case of the famous Wu tombs in Shantung, which are of the second century A. D. Many mortuary pillars of Han times are known, for instance those at the foot of Sung Shan in Honan and at Chü Hsien in Ssüch'uan. Earlier still there seem to have been no pillars, only the actual doorway of the small chapel or sacrificial temple which backed against the mound and before which stood the two guardian animals facing each other. The tomb of the famous Han general, Ho Ch'ü-ping, near Sian Fu is an example of this and is, moreover, the earliest tomb of which any such sculptures are known. However there may have been more than just the two horses at this grave. De Groot has found a reference in the Books of the Early Han Dynasty which states that "many

grave statues were made and arrayed in the mountains for Ho Ch'ü-ping." At any rate the Liang tombs, and those similar and of the same period, represent an important middle stage in the development of mortuary art, especially as regards the sculptures in front of the graves. Of the mounds themselves, and their contents we have no archaeological evidence but this may be supplied in the future by a further examination of the tombs in Honan, unless those mounds also have been razed. A number of sculptures besides the two now in this Museum, small but similar, are known to have come from near Honan Fu, but the royal cemeteries there have not been studied as have those at Nanking.

We have no information as to the identity of the occupant of the tomb before which stood the two chimeras now in this Museum. But we cannot help suspecting that he was either of the family of Lui or Hsiao, in fact that this type of mortuary sculpture, huge walking or running animals, developed in close association with the romantic fortunes of those two powerful Chinese families, from which came the emperors of the Southern dynasties who were buried at Nanking.

It is very likely that he was an emperor. M. Segalen observed the fact that at Nanking chimeras were always reserved for the tombs of the emperors, while the tombs of princes of the royal family were guarded by winged lions. The mortuary beasts still in situ near Nanking consist of:

6 chimeras from the tombs of:

Emperor Wen Ti (Liu I-Lung, d. 453), Sung dynasty.

Emperor Wu Ti (Hsiao Tsê, d. 493), Ch'i dynasty.

Emperor Yü Lin Wang (Hsiao Chao-Yeh, d. 494), Ch'i dynasty.

Emperor Wu Ti (Hsiao Yen, d. 549), Liang dynasty.

12 winged lions from the seven tombs of brothers, cousins, etc., of Emperor Wu Ti of the Liang dynasty.

2 hybrid "chimera-lions" from the tomb of the usurper Ch'ên Pa-hsien, who seized the throne of the Liangs and made himself emperor and founder of the Ch'ên dynasty in 557 A.D.

Thus at Nanking it appears to have been an established rule that chimeras should guard the graves of emperors, winged lions those



Colossal Stone Chimera. Probably from the Tomb of an Emperor of the Vth or VIth Century A.D.
Male, Length about 7 feet.



Colossal Stone Chimera. Probably from the Tomb of an Emperor of the Vth or VIth Century A.D.
Female, Length about 7 feet.

of princes. Similar chimeras, though found in Honan, probably marked the grave of an emperor.

As a matter of fact, some members of the Hsiao family are known to have been buried in Honan. Further search of the native records should reveal their position and relationship to the throne. There are ten emperors of the Hsiao family (Ch'i and Liang dynasties) unaccounted for in the cemetery at Nanking. And of the nine emperors of the Liu family (Sung dynasty) only one has a tomb there. Probably we shall never be able to assign these sculptures with any certainty unless somewhere there exists a record of their precise provenance. In style they seem at first glance to be later than the animals of the Liang tombs, which belong mainly to the first half of the sixth century A.D.; they are less clumsy and archaic, showing a certain litheness and ease of movement and more grace and sophistication of such details as the volutes on back and flanks. But certain features rather indicate that they are earlier than the Nanking beasts; for these latter show a certain decadence, a certain conventionalization due to imitation. The heads of the Nanking animals are exaggerated in size, tails seem lifeless appendages, wings have ceased to be at all functional, the decoration of volutes on the surface no longer has any meaning, the great underslung bodies are sluggish. In the development of the type they seem further removed from the truly archaic vitality of their ancestors, the winged "tigers" of Ya Chou-fu and Lou Shan Hsien, than do the two chimeras of this Museum. However, the difference may be due to the fact that Nanking was not the great sculpture center that Loyang was and the greater beauty of the Honan animals mean little more than that better sculptors were employed. It is probably a point that could soon be settled by any one who had access to the Chinese records which must exist. At present we are justified only in supposing that these two chimeras once guarded the tomb of an emperor of the fifth or sixth century A.D. who was buried in Honan, and that he was perhaps the ruler of one of the Southern dynasties.

The origin and symbolism of this beast which we call a chimera is obscure. We cannot with certainty connect it with any one of the fabulous creatures mentioned in Chinese legend. The lion may have always been "a kingly beast" in the west but apparently in the minds of the Chinese these fantastic animals were higher and were symbolic of something connected with the Emperor alone. Could they be a species of dragon and represent some stage in the

evolution of that imperial creature? Did they belong exclusively to the Liu family while it was in power, only to be adopted by the Hsiao when the latter assumed other royal prerogatives? Even if we were to learn its name and meaning we should still be in the dark as to its artistic origin.

The use of stone statues of animals to stand before the graves seems to have begun in the Han dynasty but very few examples are known. There is the horse of Ho Ch'ü-ping (117 B.C.) but that is hardly a stylistic ancestor of our chimeras. The ones which come the nearest being that are in Ssüch'uan, the great stone statue of a winged tiger or griffin at Ya Chou Fu (209 A.D.), and the pair of winged tigers at Lou Shan Hsien near Ya Chou, which belong also to the early third century. In Shantung at the Wu tombs may be seen a pair of winged lions that date from 147 A.D. from which are derived without doubt the winged lions of the princes' tombs at Nanking. But as yet no links have been established between these Han animals and the chimeras and lions of the fifth and sixth centuries.

We have spoken of the romantic history of the two families Liu 劉 and Hsiao 蕭. From very early times their fortunes seem to have been interwoven. The original home of both was P'ei, in Kiangsu Province. In the third century B.C. a young man of P'ei, Liu Pang by name, led a rebellion of laborers against the oppression of the powerful Emperor Shih Huang Ti, builder of the great wall, and in this he was aided by one Hsiao Ho, his great friend and staunch follower. Together the young adventurers held out with their motley crew in the mountain strongholds of eastern Honan until the death of Shih Huang Ti. The people of P'ei made Liu Pang their leading magistrate with the title of Duke of P'ei and from this time on his rise was steady. He was put in command of the southern army and Hsiao Ho remained at his side to advise and help. His ambitious and strong willed wife constantly urged him on to plots, intrigues, battle after battle, treachery, deception, more battles and finally the throne itself. In 202 B.C. Liu Pang was declared First Emperor of the Han dynasty and established his capital at Chang-an, the present Sian Fu. Hsiao Ho had become a marquis. He seems to have been something of a character for it is told of him that although he held the high position of chief minister he "built himself a very small house saying that if his descendants were worthy men it would be to them an example of thrift; if unworthy then they would not quarrel for its possession."

For four hundred and twenty two years the descendants of Liu Pang sat on the throne of Han and ruled all China. They were men of indefatigable energy, patrons of learning, seekers after knowledge of lands beyond their borders. Under them explorations were made to the far West and trade routes were opened up. China was not isolated, far from it! Foreign influences poured in during the Han period, as we are beginning to learn, and some can be traced back into very distant lands for their origin. The reign of the famous Emperor Wu Ti, a great grandson of Liu Pang, was unequalled as a period of material and mental growth through contact with distant peoples. Han Wu Ti reigned for fifty four years (from 140 to 86 B.C.) and gathered together at his court all the great men of his realm. It was during this reign that the well known mission to Bactria was undertaken. Chang Ch'ien, the envoy, after many adventures, returned in 126 B.C. having been gone thirteen years. He brought back with him the grape vine, the pomegranate, the knotty bamboo and other things which he introduced into China from the far west, including the art of making wine "which he had learned from the Persians." He was instrumental in further establishing the trade routes over which came articles from Central Asia, Fergana, Sogdiana, Bactria, Kashmir and even distant Parthia (which included Persia then). Wu Ti of Han was noted for his anxiety to find the Elixir of Life and it was said that many of his expeditions and missions to distant states had as their secret purpose the discovery of the peach, fountain or formula whereby he might attain immortality. However that may be the result of his efforts was to open China to a tremendous inpouring of new and potent influences from Central Asia and the far west.

Other members of the Liu family to follow Wu Ti were only less famous. In 25 A.D. the throne passed to another branch of the family which established its capital at Loyang (Honan Fu) but the contact with outside countries did not cease. In 61 A.D. during the reign of Ming Ti (Liu Chuang) Buddhism was introduced into China from India. During the reign of Ho Ti (Liu Chao) an embassy arrived from Parthia with some real lions (about 100 A.D.). As lions had been unknown in China since the beginning of the historical period, these beasts were regarded with special interest. In 91 A.D. the general Pan Chao conquered Central Asia to beyond Kashgar and Bactria, compelling more than fifty of the small kingdoms of Turkestan to submit to Chinese rule. There was continual

friction and constant intercourse between the Chinese and those middlemen, the Hsiung-nu on the north, especially between the years 126 and 145 A.D. In 158 an embassy arrived at the Chinese court from India, and in 166 came envoys from Rome sent by Marcus Aurelius who was known in China as An Tun.

The Han dynasty fell in 220 A.D. Liu Pei, a descendant of Liu Pang, seized the power in the province of Ssüch'uan where he declared himself Emperor of Shu. But his dynasty lasted only forty three years. A dark period of constant civil strife followed during which the whole of North China was in the hands of the Tartar tribes and there was no staple government in the south. The Luis were still to be heard from however. In 399 A.D. Liu Yü, a descendant of the brother of Liu Pang, appeared in the army of Eastern Chin. In 416 he became Commander in Chief, and four years later he mounted the throne at Nanking as first Emperor of the dynasty of Southern Sung. Thus China, although now a sadly reduced empire, was once more ruled by a member of the House of Liu.

Liu Yü was succeeded by two sons, the second of which, Wên Ti (Liu I-Lung) had a long and prosperous reign of thirty years and was buried south of the capital, where the two great stone chimeras which guarded his tomb may still be seen.

Again the names of Liu and Hsiao are closely linked. For the last emperors of Southern Sung were weakings under the regency of Hsiao Tao-ch'eng who claimed descent from the famous Hsiao Ho, friend and advisor of Liu Pang seven hundred years before! When the Sung dynasty fell it was this Hsiao who succeeded to the throne and established the dynasty of Southern Ch'i. Of the seven emperors of this line two are represented at Nanking by stone chimeras. In 502 after various disorders, the throne passed to a distant cousin, Hsiao Yen, Prince of Liang, who became Emperor under the title of Wu Ti and called his dynasty Liang. He is the Wu Ti so famous in Buddhist history and it is he who was responsible for the majority of the "Tombs of the Liang" south of Nanking. His reign lasted forty eight years during which he reduced taxation, founded colleges, encouraged learning, and was known as a great lover of peace. Many stories hover around the name of this kind old emperor and his immediate family. He was a devout Buddhist and twice adopted priestly garb when he was with difficulty restrained from retiring into a monastery. His eldest son, Hsiao T'ung, was a

boy of brilliant mind and of extraordinary beauty of character, one of the most loveable persons in history, but he never succeeded his father on the throne, for at the age of thirty he died of a malady brought on, it was said, by extreme grief over his mother's death after he had nursed her through a long illness. There was a brother of Hsiao Yen who was a great miser and used to put red and yellow labels on his piles of money. One of the tombs at Nanking is that of this famous miser. But probably Liang Wu Ti is known best of all for the fact that Bodhidharma, the Indian patriarch, came to Nanking during his reign. Having offended his royal patron by telling him that his good works would not count for merit the Indian saint crossed the Yangtse on a reed and went to dwell at Loyang where for nine years he sat in Shao-lin Temple with his face to the wall and never returned to Nanking.

Although a devout Buddhist, Hsiao Yen seems to have made no changes in the details of the burial customs which had been established by the Liu and Hsiao emperors before him. Many of the members of his family died before he did and for them he erected mounds guarded by walking winged lions. For his own tomb chimeras were carved. Of the tombs of the five Hsiao emperors who came after him there are no remains at Nanking. The only later sculptures are the two chimera-lions at the tomb of Ch'ên Pa-hsien, the usurper already mentioned, who evidently wished to imitate his noble predecessors.

The questions raised by these great stone chimeras opens a tremendous field for speculation. But it can be little more than speculation at present. That there *was* an early school of animal sculpture which flourished in China from before the third century B.C. to the sixth century A.D. can no longer be doubted but the matter of its origin and development is very uncertain. A number of isolated monuments point to the fact of its existence but there are too many gaps in the chain for the story to be drawn even in outline. The best that one can state at present is that there appear to be four distinct elements to be reckoned with in studying this fascinating problem. First there were the ancient traditions of the Chinese concerning fabulous and symbolic animals, giving rise to what was apparently an indigenous school of animal art which expressed itself mainly in bronze. Secondly there was the powerful influence of Scytho-Sarmatian art and customs which poured into China from the fourth century B.C. on through the Han dynasty.

Thirdly, came another influence, that direct from Bactria and Persia, which came in as a result of the expeditions to the far west made during the Han dynasty and the subsequent establishment of trade routes between those countries and China. Finally, there is the question of the use the Chinese made of these first three elements in their art and how each contributed to the growth and development of this early school of sculpture.

The Scytho-Sarmatian influence seems to have been very powerful. Mr. Yetts has pointed out that records show that in the fourth and third centuries B.C., and even before, Tartar customs were openly adopted by the Chinese and that intermarriage with the Hsiung-nu, barbarians on the north and north west, was common. The Kozlów excavations of the Selenga tombs in Mongolia prove that the Hsiung-nu served as middlemen in the exchange of articles between East and West during the first century B.C. The correspondence between the burial customs of the Chinese and the Scythians is striking, especially in the matter of interring alive or sacrificing at the grave a number of horses and retainers. That this custom was not a native Chinese one we can infer from the intense feeling against it. The scenes at the funeral of Shih Huang Ti flavor of the barbaric and not of pure Chinese culture. The earliest example of Chinese grave sculpture known to us is the stone horse trampling upon a barbarian which stands before the burial mound of General Ho Ch'ü-ping who led so many expeditions against the Hsiung-nu and who died in 117 B.C. It was one of a pair. Did these horses standing before the tumulus represent the horses slain and buried in front of the mound in the barbarian custom? Was the beginning of this school of mortuary sculpture due to the revulsion of feeling of the Chinese against the cruelty of certain details of the burial customs which they had borrowed from their Tartar neighbors? The horse is of the same type as those seen often on Scythian bronze horse trappings. It seems unlikely that the small bronze plaques could have served as models for large stone sculptures however. The similarity can be regarded only as a clue, pointing to some other monuments not yet discovered. The idea of the animal trampling upon the barbarian seems to have somehow come from Babylonia! But how, or when, or through what medium it is impossible to say.

During the earlier Han dynasty Sarmatian influence was so strong in Chinese life that its power was felt even in the reorganization of the army. Many of the details of equipment were the same.

In the fourth century B.C. the Chinese had learned the art of riding horseback from the Tartars, what more natural than that they should adopt also their style of horse trappings—which they in turn had received from the Sarmatians. Prof. Rostovtzeff points to the great influence that the Scytho-Sarmatian art had upon details of Chinese art. Whether it affected the “main stream” is hard to tell. However, it appears to be very strong in the sculpture of some of the funeral pillars in Ssüch’uan, especially in the motive of the great panther-like animal which springs with ferocious savagery upon another. A peculiar feature here is that a third creature tries to restrain the panther by laying hold of its tail! This strange motive appears on nearly every pillar at Chü Hsien and Mien Chou. And there are other animals, dragons, tigers, t’ao-t’ieh, phoenixes, horses, stags and proud prancing chimeras all in vigorous movement. One motive seems in some remote way to be connected with the great stone chimeras of the Liang tombs. It is that of the head and fore paws of a peculiar monster which appears to be scrambling over the beam on the lower part of the entablature. It has bulgy eyes, heavy brows, a pug nose, and small wings. But it is the horns which are particularly striking. They are of the type familiar to us on the horned lion-griffins of Siberian ornament, such as the running griffins of the gold collar in the Hermitage, and even the horns of the “horses” represented on Siberian plaques, for instance a bronze one in the British Museum, and a gold one in the Hermitage. It occurs on the griffins of the gold armilla and the silver rhyton of the Oxus Treasure. It is a type which may be seen on the griffins of the glazed tiles at Susa! These horns begin just behind the brows and curve straight back over the head; they are large and ringed for a short distance but then taper smoothly to a turned up knob. And—it is this type of horn that we find on the chimeras of the Liang Tombs and of this Museum. The relationship between these monster heads of the Ssüch’uan pillars and the chimeras is further suggested by another fact, namely, that where both pillars still remain—as with the pillars of Chen—we see that there is one of these animals on each, and that they evidently represent a pair, the one having one horn, the other two.

Another detail which points to the influence of Scytho-Sarmatian art in the stone chimeras is the manner in which the vertebrae of the backbone are made to form an ornamental ridge. The same characteristic is seen in the gold plaque of a lion attacking a horse in the

Hermitage, a work of the first century A.D. from western Siberia. This feature too can be traced back to Susa.

Central Turkestan and Northeastern Persia, the region known as Bactria, seems to have been the homeland of much of the Scytho-Sarmatian art which entered China through Siberia. But there was also the direct influence of Bactrian and Persian art which made itself felt in the Han dynasty. Certain motives in Chinese art have long been recognized as Bactrian, such as the running animals on Han bronze and pottery jars, and the designs of the so called "grape and sea-horse" mirrors of the fifth and sixth centuries. Whether some of the strange winged running animals represented on the Wu tomb slabs of the second century A.D. can be regarded as due to direct Bactrian or Persian influence is an interesting question. They too must be links in the chain of development of the tradition which culminated in the Liang tomb animals, especially the chimeras. However, Prof. Rostovtzeff traces the origin of the Liang animals directly to Indo-Persian art, not necessarily Bactrian.

The huge stone chimeras acquired by the Museum are not only artistic works of the highest order but are important also because of their place in the early Chinese school of animal sculpture of which we really know so little. What may be the relationship of the chimera to the winged lion or that of both to the earlier mortuary tiger at Ya Chow or lions at Chia Hsiang the next few years will perhaps disclose. But it will be a long time before the tangled strands of the problem of foreign influences can be straightened out and the origin and name made clear and the artistic development traced of these fabulous beasts which guarded the tombs of the Emperors in the fifth and sixth centuries A.D.



A Wooden Statuette from the French Sudan.

TWO WOODEN STATUETTES FROM FRENCH WEST AFRICA

THE Museum has recently added to its collections representing the wood-sculpture of Upper Guinea several remarkable examples from French territory in or adjoining that region. Two of these are figured here and described, with some additional comment.

I

The statuette shown first is in several respects the more interesting, in that it exemplifies qualities which, in combination, appear broadly to distinguish the sculpture of the Western Sudan from that of other parts of Africa.

In general treatment the figure is unmistakably negro. There is the characteristic avoidance of details which are not conceived as important, such as the musculature of the trunk and limbs, with the almost diagrammatic rendering of outlines which necessarily accompanies this; the bold and well-balanced disposition of masses; the simple and vigorously direct statement of the sculptor's conception of his subject as a whole. There is also, applied in this case especially to the nose, breasts, hands and feet, that exaggeration or intensification of nature which the negro artist employs to give value to peculiarities regarded as significant for distinctiveness, racial, perhaps, or otherwise symbolical; a device which, handled as it is here with a craftsmanship fairly to be called polished, has all the sophistication of the methods of an occidental master of caricature, though without the latter's consciously humorous prepossession. It is as if a Max Beerbohm, trained to see angles rather than curves, and purged of malice, should undertake the portrait of a famous *diva*.

The specific features alluded to, which the statuette has in common with other examples of Western Sudanese wood-sculpture, are in reality forms of this treatment, and so do not deprive it of the right to remain within a truly African category. These characters are an extreme slenderness and a bizarre modification of parts of the object as it is represented into forms suggestive of the distinctive traits of some other creature. So, in this instance, the

hands and feet have been turned into forms clearly intended to suggest the paws of an animal. In another class of images, typical of a part of the French Sudan not very distant from the place of origin of this figure, the slender muzzle of an antelope goes over in some cases, into the semblance of the long curved bill of a bird while the rest of the animal though highly stylized into a corresponding extreme of slenderness retains at least some of the parts, often much simplified, which characterize the original conventionalization of an antelope.¹ The operation of the same tendencies may be seen in certain facial masks from the interior of the Ivory Coast.²

In the absence of definite information as to the history or place of origin of this statuette either from the former owner or to be obtained, so far as the writer knows, from the literature on the French Sudan, satisfactory identification seemed difficult. There is an almost identical figure in the British Museum which is said to have come from Sierra Leona, but a communication from Mr. Braunholtz of the Department of Ethnography characterized this attribution as doubtful and referred to a similar figure in the Museum of the Trocadéro in Paris. The following extract from a letter from Dr. R. Verneau is, I believe, decisive as to the provenience of the statuette:

"The Ethnographic Museum of the Trocadéro has a wooden statuette which is very similar to yours. It has the same neck, trunk, breasts, arms, and hands. It is in a standing, not a sitting, posture. The head, however, and especially the coiffure, show certain differences; but I think it must come from the same region as yours. It was found in a ruined hut at Bouganoura in Khasso. . . .

"There are in the Museum of the Trocadéro other wooden statuettes very similar in design to the one which the University Museum of Philadelphia has purchased. They come from the region included between the Upper Senegal, the southwestern extremity of the French Sudan, and French Guinea; that is, from the region situated to the east of the Upper Gambia and Portuguese Guinea." This must mean, roughly, the triangular portion of the French Sudan (officially, "Upper Senegal-Niger") bounded on the northeast by a fairly straight line drawn through Kayes

¹ M. Delafosse, *Haut-Sénégal-Niger: Le pays, les peuples, les langues, etc.*, III, Plate 31; J. Henry, *Les Bambara*, illustration at end entitled "Procession du Tjiwara" and the following illustration; L. Frobenius, *Das sterbende Afrika*, Texttafel 12 and 13.

² P. Guillaume, *Sculptures nègres*, Plate XIX; *La Renaissance de l'art français*, 5th year, No. 4, Fig. 4; *L'Anthropologie*, XI, P. 440 (Delafosse).

and Bafoulabe—so as to include the district of Khasso—to the point where the river Baknoy leaves French Guinea, on the west by Senegal, and on the south by French Guinea.

In view of the fact that Dr. Verneau considers the Trocadéro statuette from Khasso to be the one which most closely resembles the figure here, it is possible that the latter is the work of a Khassonke artist. The racial composition of the Khassonke as given by Delafosse is of interest in this connection.

The tradition current at Kayes is to the effect that the ancestors of the Khassonke were a Fula shepherd and a Banmana (Bambara) woman of a family whose herds the Fula guarded. Delafosse is of opinion that the origin of the Khassonke goes back to the tenth or eleventh century of our era and that as the Banmana had not at that time reached the neighbourhood of Kayes, the chief Mande element in the ancestry of the Khassonke referred to in the tradition would really be not Banmana but Kagoro, another Mande group speaking a dialect which greatly resembles Khassonke. Moorish (aboriginally Berber), Malinke and Soninke (Mande or Mandingo) elements have probably also contributed to the formation of the Khassonke.¹

The Fulbe—this is the plural form of the word Fula—are a people of the Western Sudan of mixed white and negro descent, who, originating, according to some writers in the central Sudan, according to others in the extreme west, have spread as conquerors across the French Sudan and into British Nigeria, where they have ousted the Hausa as the dominant element. Their white ancestors were probably Berbers, the race which so far as is known were the aboriginal inhabitants of northern Africa, or at any rate of the western half of it. The negro² element in their ancestry is probably chiefly Mande or Mandingo. In the opinion of Delafosse and of others as well,² there is a Semitic element in the ancestry of the Fulbe, so that their white blood would be drawn from at least two sources.

In the negroid peoples of the Sudan a portion of their racial inheritance on the dark side which becomes more and more predominant the further south one moves is undoubtedly supplied by an element akin to the tall, slender negroes of the Upper Nile val-

¹ Delafosse, III, pp. 227, 289–290.

² Delafosse, III, p. 216 ff.; A. J. N. Tremearne, *The Niger and the West Sudan*, p. 33 ff. Tremearne sums up the evidence, mostly based on tradition and conjecture, for a Semitic origin of the Fulbe, apart from the relatively small Arab element in the Moorish peoples.



Front View of the Sudanese Statuette.



Rear View of the Sudanese Statuette.

ley. This would be sufficient perhaps to account, on the realistic side, for the slenderness of figure emphasized in the statuette. But the shape of the face and the outline of the features—especially the nose—apart from the recession of the chin, are anything but negro; indeed there is every appearance of a distinct intention to mark this fact and to bring out the side of Sudanese ancestry which was not originally marked by the typically Sudanese dark shade of colouring. And the shape of face and features points not to a Berber but rather to a Semitic strain, which would also be fitly indicated by the tall slenderness of the figure. In any case the general appearance of the figure suits well with descriptions of individuals in Sudanese groups which boast of Fula ancestry.

Though the region of origin of the statuette may be regarded as satisfactorily settled, the group in which it originated cannot be so certainly determined. For not only Khassonke but other related groups inhabit this triangular corner of the French Sudan. Racially, however, the composition of all these tribes is similar, and the type of features in question, though no doubt idealized in statuettes of this nature, may be expected to occur not infrequently; and as the element of ancestry represented by these traits is valued, the latter find their place naturally in images of this class among peoples who have a tendency towards what is often called ancestor worship.

The religious observances of these tribes include a feature which is quite general. This is the worship of a triad of divinities, father, mother, and child. The father is the sky god, sometimes identified with the sun, the mother is the earth, sometimes identified with the moon, and their offspring are genii who have power over the world and over life and death, happiness and misfortune. According to Delafosse, the parental pair are divinities of fecundation and fertility, and they are invoked in oaths and in the expression of wishes. Their worship, he says, is less important than that of their eldest child, the third member of the triad, who is sometimes represented as bisexual, possessing both the male and the female powers of his parents, and who is the real intermediary between man and the supreme god. The latter is usually identified with the sky god, though, says Delafosse, the old people attribute to their high god a special name known only to themselves, which is not the name of the sky.

Is this figure to be regarded as representing the goddess of the earth, or moon, or is it a memorial to a deified or semideified ances-



A Wooden Statuette from French Guinea.

tress? The founder of a family is venerated. Gradually ancestors are transformed into true heroes or demigods having cults which are confined to groups of real or putative descendants, a family, clan, subtribe, or tribe.

But, apparently, the deified ancestors of the larger groups, the clans or tribes, are not represented by figures of this kind but reside in sacred trees or shrubs, to which offerings are made of feathers, blood, and eggs. The altar to the tutelary spirit of a family is erected in the dwelling and images representing the ancestors are often placed about it; these are made of wood, clay, iron, or bronze. Such images, however, are not likely to be of the generalized pattern to which our statuette clearly belongs. Probably, then, we are to exclude as possible originals which it could represent both ancestral demigods of clans or tribes and ancestors of the family. There remains the strong probability that we have here a representation, in terms of the characters regarded as most desirable in one's ancestry, of the mother goddess of whose attributes it is said—and this surely adds weight to the probability—that “the Earth or female genius is represented as a woman with immense breasts or simply by means of a pair of breasts.”¹

It does not seem satisfactory to attempt to explain the peculiar form given to the hands and feet simply as a conventionalization of those of a human being. Their size and bulky appearance are too strongly contrasted with the otherwise prevailing impression of slenderness obtained from the figure, in view especially of the fact that these people are not noted for the large size of their extremities. There is besides an evident intention to convey the impression that they represent the fore and hind feet of an animal.

The social organization of most of these tribes includes a number of groups each marked by the possession of a *tana* or taboo, usually one which forbids the killing of a certain animal, and by a prohibition against marriage between members of the group. There are also subsidiary taboos which are common to members of the same group. Among the animals which, in one tribe or another, are the objects of a *tana*, are the hippopotamus, the lion, and the crocodile. Delafosse declares that there is no representation in the art of the object tabooed,² but it is difficult to decide whether this statement can be considered inclusive enough to cover the modifica-

¹ Delafosse, III, pp. 168–174.

² III, p. 181.

tion of parts of a statue to indicate, say, the limitation in use of one form of the statue of a goddess to an exogamous group having the animals designated by such modification as a *tana*. This can be regarded as no more than a suggestion. Its possible validity is not aided by the apparent lack of any necessary connection between the *tanus* and religion. On the other hand, a statement made by Delafosse in connection with the correct name of the people commonly known to Europeans as Bambara, may also have some bearing on the problem. He says that the word Bambara may be derived from the Mande term for a crocodile, *bamba* or *bamma*, and that all the peoples whom the Moslems group under the name Bambara, that is, all the peoples of this part of the Sudan, have the crocodile as a "religious emblem."¹ The hands, at any rate, of this statuette bear some resemblance to the claws of a crocodile. I am, however, unable to suggest any reason why the crocodile should be connected with the deity who is probably represented here.

The ornamental cicatrization of the shoulders, breast, and waist is of a nature represented in more than one Sudanese group. The descriptions of coiffures with which I am familiar do not allow of the exact identification of the pattern illustrated here. Neither of these features, which sometimes assist in the identification of examples of African wood-sculpture, is, therefore, of assistance here. The stool, of a somewhat generalized form, is no more than an indication of rank.

II

The second figure pictured here is from French Guinea, and specifically, from the people known as Baga or Bagga.² These people are said to have an extremely simple and primitive mode of life and organization. They are fisherfolk and growers of rice, living in the islets at and near the mouth of the Rio Nuñez—one of the streams between the river Gambia and Sierra Leone to which the region owes the name by which it is sometimes known, Rivières du Sud.

The figure is somewhat smaller than the Sudanese statuette— $19\frac{1}{8}$ inches in height as compared to the $20\frac{7}{8}$ inches of the latter. It is of a cruder type in workmanship and design and less differentiated than the other from the norms of style in the general field of

¹ I, p. 126.

² Baga-Foreh, probably, rather than the Southern Baga or the Baga-Madouri.



Side View of the French Guinea Statuette.



Rear View of the French Guinea Statuette.

negro sculpture. It represents a woman of the rather stocky type of forest negro, so called, which is the type of the Guinea Coast native.

Little is known of their beliefs and practices which might be relevant to usages connected with such images as this. In the Pitt-Rivers Museum at Farnham in Dorsetshire there are two of these statuettes, one of which figured in a war between two Baga chiefs in 1884. The defeated side attributed its misfortune to the capture of the image by the victors. This, in the absence of further particulars, is evidence merely for some kind of connection between these Baga images and military success, this obvious inference is about all that is justified in the circumstances. In a popular magazine, *La Renaissance de l'Art Français*, published in Paris, the issue for April, 1922, has an illustration of a drum supported by four figures almost identical in style with that shown here. Two of them apparently represent males, the others may be females, since Baga images seem to occur in pairs of this kind. Of the four supporters of a stool in the Historical Museum at Berne, two are males and two females, and there is also a pair of images at Berne both almost identical in style with the female example here, but diversely sexed.¹ The drum in question is stated in the text to be a war drum and four figures supporting it are said to be "fetishes of maternity." The original is in the Trocadéro, but it is not clear whether the statements made in the text are made on the authority of the Museum. If so, we may have here another instance of members of the West African triad of deities referred to in dealing with the Sudanese statuette; and we have also a definite connection of the Baga images with war. But fertility deities need not also be definitively gods of war; they might, as high gods and propitious in a general way, be carried into battle or associated with the summons to war given by a war drum, to ensure victory by a particular exercise of their general power.

A physical feature which, in a manner, relates the Baga statuette to the Sudanese is the definitely non-negroid nose. Futa-Jallon, sometimes regarded as the area of differentiation of the Fulbe, is on the border of French Guinea, which has undoubtedly been subjected to peaceful penetration, as well as warlike, by the Fulbe.

For the loss of the hands in a convention which brings the lower arm into close juxtaposition with the lower face, leading, as here, to a loss of the mouth as well, or, in other cases to a fusing

¹ For the last two see L. Frobenius, *Das unbekannte Afrika*, Pl. 166.

of the hands with the region of the mouth, one may compare the figures published in the MUSEUM JOURNAL for March and June, 1923, all, including the figure here, coming from different localities in western Africa.¹

The double crest in a sagittal position along the otherwise shaven head must represent hair in a mode of hairdressing which in slightly varying forms is common in Africa. The similar crest down the middle of the forehead probably represents a double tress of hair plaited or plastered with grease and not a cicatrized decoration of the skin.

¹ Figures 16, 17; cf. Fig. 12 and see Fig. 11, March, 1920.



The Tomb of Ra-Ka-Pou.
The false door is at the end of the right-hand wall.

THE TOMB CHAPEL OF RA-KA-POU

A COURT OFFICIAL OF 2650 B.C.

BY CORNELIA H. DAM

THE Fifth Dynasty Tomb of Ra-Ka-Pou from Saqqara was sent to this country by the Egyptian Government for the St. Louis Exposition in 1904, and afterwards presented to the University Museum by the Honorable John Wanamaker. It was temporarily set up in a room in the basement, where it was shown, on application, to those who knew of its existence in the Museum, but it was only with the opening of the Eckley B. Coxe, Jr. Egyptian Wing last spring that the Museum had room to install it fittingly in the Egyptian galleries, where it is now one of the popular features of the collections.

The tomb, a typical mastaba of the Old Empire, was first noticed and briefly described by Mariette in *Les Mastabas de l'Ancien Empire*, 1891, where he copied the inscriptions of some eighty-six of the hundred and forty tombs discovered by him at Saqqara in 1877. He thus describes that important cemetery of ancient Memphis:

THE NECROPOLIS OF SAQQARA

"The most ancient, most extensive, and most important of the necropoles of Memphis is the one to which the village of Saqqarah has given its name. . . .

"Just at the point where the desert begins and cultivation ends, is a sandy plateau, which, from a height of forty meters, dominates the verdant plain stretched at its base. On the top of this plateau lies the necropolis.

"The necropolis of Saqqarah must once have been, like all Egyptian necropoles, a veritable city of the dead. There twelve pyramids rise, drawing the attention of the traveller to it from afar. It has its streets bordered by monumental tombs, its districts, its thoroughfares, its squares. There may be seen enclosures where they stored and where they worked the stones, and other enclosures where they penned the animals destined to be sacrificed during the funeral ceremonies.

"The necropolis of Saqqarah must have had, like all Egyptian necropoles, its officials and its employés, charged with the care of

the tombs, with their upkeep, with the distribution of the lots assigned to families, as well as the ceremonies in connection with the funerals and the cult of the dead. The inscriptions discovered during the exploration of the necropolis are unfortunately extremely poor. . . . The study of the place, supported by the study of the papyri, informs us satisfactorily upon the extent of the necropolis and its general disposition; we are less fortunate in regard to the personnel, necessarily quite numerous, that must have functioned there."

In the necropolis Mariette found several different kinds of burials. The poor were simply laid in the sand at about a meter's depth, or in crudely built brick vaults, or in the large communal tombs where mummies were stacked, one above the other, by the hundreds.

The tombs of the mastaba type have been found only in the cemeteries of Memphis, and all belong to the period of the Old Empire (about 2500 B.C.). They must have been, judging by their size and rich decorations, the tombs of the wealthy citizens of Memphis during the Pyramid Age. Ra-Ka-Pou, as we read in the inscriptions on his tomb, was an official of the court.

Concerning the name given to this type of tomb Mariette says, "they call in Arabic *mastaba* the bench or platform built of stone that is seen in the streets of Egyptian villages before each shop. . . . There is in the necropolis of Saqqarah a tomb which has in its gigantic proportions the form of a mastaba. The natives of the neighborhood call it 'Mastabat-el-Farâoum; The Seat of Pharaoh,' believing that once a Pharaoh sat there to mete out justice.

"Now the Memphite tombs of the Old Empire which in such number cover the plateau of Saqqarah are all constructed in more or less reduced proportions on the type of *Mastabat-el-Farâoum*. Therefore the name of mastaba which from the beginning in the necropolis of Saqqarah we have given to this class of tomb."

STRUCTURE OF MASTABA TOMBS

Briefly, the general plan of construction of the tombs is as follows: deep in the solid rock below the sand, was hewn the vault in which the mummy was to be deposited, and once buried, hidden forever from human eyes. A rectangular shaft, slanting or vertical, led from this subterranean vault to some secret spot in the mastaba, or superstructure of the tomb. When an undespoiled tomb was found, it was noticed that this shaft, masonry-lined where it trav-

ersed the sand, was filled with broken bricks, rubbish and cement, to make the only entrance to the vault impenetrable. The superstructure of the tomb might vary in size, but was always in the mastaba shape, rectangular, flat roofed, the four sides sloping slightly inwards. The core of this superstructure was of sand, gravel and rubbish, but the unornamented outside and often elaborately decorated chambers inside were faced with limestone blocks, averaging two and one half feet long, one and one half high and two deep. Not far from the chamber, and carefully hidden in the thickness of the masonry, was a rectangular recess built of large stones which has been called *serdab*. It was sometimes without communication of any sort with other parts of the mastaba, sometimes connected by a narrow conduit with the chamber, in order perhaps that the offering of incense might reach the soul of the deceased through his statue walled up there.

THE TOMB OF RA-KA-POU

The tomb of Ra-Ka-Pou in the Museum had when Mariette visited it, the remains of two chambers approximately of the same size and shape within its massive structure. The outer room was undecorated, so that the sculptured passageway and inner room, now set up in our collections, formed the most important and interesting features of the tomb. This inner room is 19 feet by 6; the existing walls 10 feet high, the passage $3\frac{1}{2}$ feet long and 2 feet wide.

As we enter the narrow passage, we seem to be passing, as the soul of Ra-Ka-Pou did on his journey to the lands of the blest, down a river, for on either side are sculptured in low relief, once brightly painted, representations of the narrow, high-sterned boats that sailed up and down the Nile five thousand years ago. On the right of the passage are three sailing vessels, on the left four propelled by oars. Models of just such boats were found in later tombs and crude pictures of similar boats appear on vases of prehistoric times, all of them very like the Arab feluccas that skim the waters of the Nile today. The oblong sail is hung from a square yard-arm at the top of the mast, and a sailor perched high on the stern holds the sheets in both hands. Two steersmen with long oars stand below him, and a man with a long pole, or boathook perhaps, stands in the bow. Along the center are seen the heads of half the crew of oarsmen, the corresponding half on the other side of the boat not being represented. The crews vary in the different boats from eighteen



Ra-Ka-Pou inspects the offerings brought from his estates to the tomb.
The left wall, upper end.

to twenty-six. The sailing boats on the right seem to be moving along before a good breeze, and the crews have shipped their oars, but in the rowboats on the left you see the crews throwing their weight on the long oars. In the center rowboat one of the helmsmen holds a baton in his right hand, perhaps to beat time for the rowers, while another man who may be the captain talks to the boatman in the bow.

Within the chamber the walls are sculptured from top to bottom with processions of servants carrying funeral offerings towards the great stele or *false door* at the end of the right hand wall. This stele, the most important feature of the tomb, represents, according to Mariette, the façade of a building of the period, i. e., the tomb itself; a symbol of the tomb, to which the owner hopes eternal offerings will be brought just as the sculptured scenes on the walls suggest. The inscription, here beautifully cut in intaglio and painted bright blue, and the sculptured scene in the center give the key to the prime meaning of the decoration of the tomb.

Architecturally the stele represents a double doorway, or door within a door, the jambs and lintel of each being inscribed and sculptured. Below the lower architrave is the true lintel, or "drum," inscribed merely with Ra-Ka-Pou's name. Between the two architraves is a space filled with the scene of the offering table: Ra-Ka-Pou is seated on a chair before an offering table on which are arranged slices of bread(?). Above his head is an inscription giving his name and chief titles: "Overseer of the scribes of the treasury, assistant in the treasury, Ra-Ka-Pou," and above and below the table a list of offerings that he wants: "A thousand loaves of bread, a thousand jars of wine (or beer), a thousand cakes, a thousand heads of beef, a thousand geese, a thousand of all sweet things, a thousand hanks of thread of every kind, a thousand rolls of cloth(?)."

On the upper architrave (i. e., the "outer door") is the inscription that Mariette found usually on the entrance doors of the tombs, as well as on the false doors in the inner chambers:

"May the king give an offering,
May Anubis before the Divine Portal grant an offering,
And his (Ra-Ka-Pou's) funeral equipment
In the Underworld, in the cemetery
To him who is deserving before the great god.
May Osiris, ruler of Busiris, grant an offering,

Sepulchral offerings at New Year,
 At the Festival of Thoth,
 At the Great New Year Festival,
 At the Festival of Seker,
 At the festival of Great Heat,
 At the Festival of Min,
 At the Monthly Festival,
 At the feast of the month and of the half-month,
 And every festival day, in joy forever.
 Overseer of the scribes of the treasury,
 Assistant in the treasury of the great house (palace?),
 Chief guardian of the treasury
 And head priest of the altar of the pyramid of Assar."

Assar was the eighth king of the Fifth Dynasty, which enables us to date Ra-Ka-Pou's tomb as about 2650 B.C. At the right of this inscription is a figure of Ra-Ka-Pou standing, a staff in his right hand, and a curved object (piece of cloth?) in his left; beside him is written the title "assistant in the treasury, Ra-Ka-Pou." Similar inscriptions run down the jambs of both doors, at the bases of which are two seated figures of Ra-Ka-Pou similar to the one before the table of offerings, and four standing figures like the one on the upper architrave; above each is written "Ra-Ka-Pou." The figures of Ra-Ka-Pou are worthy of notice. We see him dressed only in a short kilt, tied up in front by a girdle, the ends of which fall down to his knees. He wears a heavy close collar, a closely curled wig and a short beard. In the seated pictures the chair is carefully drawn, and we see its very low back over which falls the end of the cushion, its graceful legs in the form of those of a lion, and little red cones beneath them for added support and height.

Before this great stele or false door was probably placed a small stone offering table, inscribed, the type of which may be seen in the Museum collections.

The rest of the walls bear representations of the bringing of the offerings mentioned in the great inscriptions on the false door, each wall being dominated by a colossal representation of Ra-Ka-Pou.

On the right wall, as we enter, we see this Court Official seated before an offering table, just as he appears on the center panel of the false door, except that here he carries in his left hand the three-



Libation scene. Stores of offerings brought on feast days to the tomb.
The left wall, center.

fold flail or fly whisk, a badge of office. Before him are heaped the offerings, covering three registers of the entire wall: trays piled with joints of beef, others with vegetables, or loaves of bread and cakes, trussed ducks and geese, baskets of figs, jars of wine or beer, grain, onions, calves' heads, and many more pots and vases, the contents of which it is hard to guess. Just before his head, above the offerings, is neatly written in exactly ruled spaces a list, originally of ninety items, of the offerings Ra-Ka-Pou wanted brought to his tomb: he calls for ten different cuts of meat; fourteen kinds of bread and cake, among them "roast bread," probably toast, and cakes made of dates and figs; five kinds of grain, figs, onions, apricots(?), cucumbers(?); butter or cheese; four kinds of wine, water of course; green eye-paint; cloth, incense, perfume, sacred oils of various kinds, oil of cedar, Libyan oil; "the chief things of the altar," "all sweet things" and "all growing things."

Below the heaped up offerings are two registers which show the servants of Ra-Ka-Pou preparing the offerings and carrying them towards the false door. The first man carries something (effaced) in each hand; the second, a foreleg of beef; the third, a tray of tall loaves and a bunch of lotus on his right arm, a duck in his left hand; the fourth, two trays of bread and cakes, topped by ears of corn(?); the fifth, a huge crescent-shaped bowl or basket filled with pointed jars and loaves or cakes; the sixth, a tray of tall loaves, lotus flowers, and a duck; the seventh, two trays of loaves, corn and jars, while over his left arm is hung a bunch of lotus and from his right a forequarter of beef. The eighth carries a live goose, his right hand grasping its beak to prevent its pecking him; he is followed by a man with another crescent-shaped basket, a second carrying a tray of cakes and a bird, a third carrying a tray of joints of meat, papyrus and lotus, etc. The procession turns the corner and continues on the narrow walls beside the entrance door. On the lowest register of the right wall we see the butchers cutting up the trussed oxen. The "butcher" and his "assistant" stand one at each end of the carcass; each has his name written above him. The assistant always merely grasps the foreleg, while the butcher, who has his whetstone tied by a long string to his kilt and stuck in the back of his belt, wields the knife. Attendants stand beside them, loading joints on their shoulders, or walk towards the false door bearing the joints of meat. An inscription above their heads and one running down the edge of the false door behind the colossal figure of Ra-Ka-Pou,

announce that this is "the occasion of the bringing of offerings," to Ra-Ka-Pou.

On the small back wall is a similar scene, badly defaced, of Ra-Ka-Pou seated at a table, a shorter list of offerings before him, more offerings piled below the table, and more servants carrying similar offerings towards the false door. On the lower part of this wall, and the adjoining part of the left wall the color in several shades of red, brown and yellow, bright green, blue and black, is astonishingly well preserved; and in the corners where it framed each wall may be seen the typical Egyptian border of successive red, blue, green and yellow blocks, that appears a thousand years later in the Palace of Merenptah.

The left wall is the most varied and interesting of the tomb. Almost the entire upper quarter towards the back is occupied by stores of offerings: much of it as clearly and brightly painted as if it had been done five, not five thousand, years ago. Here and there fine lines painted on offering table or vessel enable us to conclude that that shape was made of basketwork, not stone or pottery. Some of the oval-shaped objects commonly called loaves are painted so conventionally in diamonds and dots as to suggest that they might have represented boxes of meats such as were found in Tut-Ankh-Amen's tomb.

The lowest two registers balance those on the opposite side of the tomb, with a scene of the butchers at work and porters carrying off the dismembered joints, and above, a long line of porters laden with every sort of offering to add to the store accumulating in the corner.

In the center of the wall is a huge figure of Ra-Ka-Pou, standing, staff in hand, and just behind him, on a level with his shoulder, is one of the most interesting scenes in the tomb: a scene of purification. A man kneels on the ground, while behind him a priest, entitled "*Sehetch* inspector of servants of the Ka" (of Ra-Ka-Pou), pours water on the ground before him. Behind the *sehetch* stands a *heb* priest, carrying a block or writing tablet in his hands; behind him there is another *heb* priest, raising his left hand and holding a short stick in his right; while last of all stands a *heb* priest, with his back to the others but his head turned towards them, resting the implement in his left hand on the ground. The *heb* priests wear long wigs, unlike the others of the tomb, and wide bands passing over the right shoulder and under the left arm.



Porters bringing food offerings to the tomb.
The left wall, lower end.

The large standing figure of Ra-Ka-Pou in the center of this wall is the most carefully modelled of all the representations of him in the tomb. If this is a portrait we are forced to conclude that he was neither young nor handsome. In front of him, only as high as his knee, is a miniature replica of Ra-Ka-Pou, which, from the *Sa*-sign above his head, I take to be a representation of his son. The inscription informs us that Ra-Ka-Pou is inspecting here the offerings brought before him.

Facing him come the most charming bits of sculpture in the tomb: on the top register a woman is carrying a basket on her head, and leading a wee kid, followed by two men, each leading a young oryx by the horns with his left hand, while his right strokes the beautiful creature's muzzle. On the next register come seven women, carrying baskets of offerings on their heads, one leading a lamb, one a kid, and one a calf, by cords tied to the little animals' left forelegs. In front of each is written the name of Ra-Ka-Pou's estate from which she comes. It is interesting to note that all the women carry their baskets on their heads, while the men carry them always on their shoulders. Following the women comes a man leading two magnificent oxen, while two more, their halters hanging free, walk peacefully alongside. In the register below are three flocks of birds: "two thousand Numidian cranes," "two thousand two hundred geese," and "two thousand *therp* geese." This whole register has a charming grace, and is an excellent example of rhythm, a quality too often denied to Egyptian art, even by kindly critics. The modelling of all the animals is graceful, sympathetic, and accurate.

The general effect of the tomb is far more gay than sad, and if we imagine the very brilliant coloring that must originally have covered the walls, we perceive a scene rich and imposing in its effect. The hieroglyphs are bold and carefully cut; the sculptures, in spite of the inevitable monotony of the procession and the awkward conventions of representing the human figure, have a freedom and vigor seldom equalled at any other period of Egyptian art.

Mariette calls attention to the fact that in the mastabas of the Old Empire there are nowhere representations of divinities or divine stories: "Everywhere that which is spread before the eyes does not leave this world. One sees the deceased at home, surrounded by his family, enjoying a peaceful and happy life as the Egyptians of that time conceived it. Those strange gods who greet the dead at his entrance into the other world are also absent. . . . It is the

entire household of the deceased that we see pass before him and place funeral gifts at his feet. . . . In one sense the inner room of the mastaba belongs not to the dead, but to his survivors; the wife, the children, the servants rejoin each other there. At certain religious festivals of Modern Egypt (even every Friday) relatives are seen going toward the cemeteries, carrying the bread, cakes, onions, dates that they will place at the head of a tomb. The Old Empire already had this custom. . . . For the relatives assembled in the inner chambers of the mastabas the dead revived. They saw him again seated at the same tables, surrounded by the same servants, sailing the water, taking part in the same hunts. Certain features of his life, scattered here and there, only served to render his memory more vivid. At the same time, according to a belief that ritual had already hallowed, they helped, in some way, his life in the other world. . . .

“The wife and son of the deceased see him thus dead and yet living; who knows whether in their ideas, the great figures in bas-relief which cover the walls and represent the deceased are not haunted by his spirit?”

Certainly one who spends a little while within the tomb in attentive observation of these varied scenes feels sure that Ra-Ka-Pou's *Ka* has followed his tomb from Egypt to dwell somewhere behind its walls where they now rest in the Egyptian wing.

MIRRORS OF ANCIENT AMERICA

BY DR. J. ALDEN MASON

THE idea of a mirrorless world is far from being a purely hypothetical one; the human world was without mirrors for untold ages, and even today many savage peoples have never seen a mirror, start in surprise and fear when they first behold one, and know their own countenances only as dimly and vaguely outlined in the quiet waters of a pool. Artificial mirrors of any kind have been known for but a few millenniums, only a tiny fraction of man's age, yet such was the longing urge of mankind "to see ourselves as others see us" that mirrors are found among the first of the products of the earliest high cultures, those of Mesopotamia and the Mediterranean.

The manufacture of mirrors probably began with the discovery of metal working. The first man who hammered and cast copper could scarcely have failed to note its powers of reflection and thereupon determine to make for himself an object for that special purpose. The mirror of classical antiquity was doubtless perfected and somewhat standardized very early in the history of metal working, for it is found dating from early times in Egypt and Mesopotamia. The most artistic mirrors, however, are the Etruscan and the Grecian. They ordinarily consist of a thin disk of bronze, slightly convex and highly polished on one side, held by a projecting handle. Most of them bear on their reverse very interesting engraved scenes from classical mythology. Such a mirror is known as a *speculum*. In later and mediæval times small mirrors of burnished metal, generally of steel or silver, were carried by ladies of rank, and even today, similar mirrors are used under conditions where a glass mirror would be in great danger of breakage and irreplaceable, as every sportsman and participant in the late war well knows.

The common looking glass, it seems, also has an ancient history, since it was manufactured by the Phœnicians at Sidon and was mentioned by Pliny. These most ancient looking glasses were generally coated with tin. Apparently, however, mirrors of this type were less favored than the *specula*, possibly because they were thought to be less efficient, certainly because they were more fragile. The breaking of a mirror has always been considered an omen of ill fortune;

this superstition probably was due to the fact that mirrors were much used in divination, and to break one was to destroy the means of contact with the gods, and so to anger them.

The glass mirror was gradually improved until, about the beginning of the seventeenth century, it completely supplanted the speculum. In the Middle Ages it was backed with thin sheets of metal, generally of lead, but "silvering" with an alloy of tin and antimony was soon discovered to produce a superior result. Although the term "silvering" for the mirror backing apparently has always been employed, no silver was used until 1840 when the present process of using a thin coating of metallic silver came into use.

But throughout the ages of human development up to the Bronze Age, mankind pursued his tasks, his countenance only dimly reflected by inefficient means. These conditions persist in many parts of the world at present, for the Bronze Age was by no means a uniform historical period. In many places in the world, for lack of accessible copper, the natives have never passed through a Bronze Age. Indeed, in others, such as the Valley of the Amazon, stones are so rare or entirely unsecurable that the natives cannot be said to have attained even the Stone Age.

In America¹ in pre-Columbian days, glass and burnished steel were alike utterly unknown, and the use of copper and bronze was evidently of very late development and known only in very restricted regions. In Peru, the region where bronze was most used and where the material culture was probably the highest in ancient America, one of the most reputable of the historians of the time of the Conquest, Garcilasso de la Vega,² reports that mirrors of polished silver and of polished bronze were used by the women, the former by the nobility, the latter by the commoners. Men disdained to gaze into mirrors. Unfortunately, no silver or bronze mirrors have ever been discovered, a fact which has led some archæologists to discount the statement, despite Garcilasso's general credibility and the circumstantial nature of his account. The same historian claims that certain mirrors were concave and of such reflecting power that fire was kindled with them in certain ceremonies.

Practically all American mirrors, however, were made either of iron pyrite and its kindred marcasite, or of obsidian. Mirrors of

¹ An exhaustive monograph on "Mirrors in Pre-Columbian America" by MARSHALL H. SAVILLE is now in preparation as Vol. VII, No. 3, of the *Contributions from the Museum of the American Indian, Heye Foundation*, New York City.

² GARCILASSO DE LA VEGA, "Commentarios Reales," Madrid, 1722-23; lib. II, cap. 28, p. 70.

both materials are found in Mexico,¹ in Ecuador and in Peru and the difference between those from the various regions is slight. Sahagun, to whom we are indebted for most of our information on the details of the life of the Mexicans before the time of the Spanish Conquest, devotes a portion of a paragraph to the stones from which mirrors were made. He mentions two, apparently pyrite and obsidian. One, he says, is white and makes beautiful mirrors which reflect perfectly; they were employed by persons of high rank, both men and women. Other stones (probably obsidian, but possibly a poorer quality of pyrite) are black and distort the countenance; these mirrors are made in various shapes as circular or triangular.



Aztec
hieroglyph
denoting
mirror

Obsidian is a dark volcanic glass, very hard and difficult to work, but taking a high polish. It was known in the Andean region as "Vulture Stone." Mirrors made of obsidian are generally rather large and thick, either rectangular or circular, and are less common than pyrite mirrors. A few have been found in the coastal region of Ecuador and Peru but the larger number come from Mexico.

Iron pyrite was the material most commonly used for mirrors in ancient America. Indeed, in the Andean region, so much was it employed that it received the name "Inca Stone." Pyrite frequently occurs in spheroid nodules two inches or thereabouts in diameter. When these nodules are sawn or split in half, the surface of the section polished, and suspension holes drilled in them, they make fairly effective mirrors. Numbers of examples of almost identical type have been found in Mexico and in Peru. They range from about one and one half to three and one half inches in diameter. Some of them have convex surfaces, their scope of reflection being thus greater, while others are quite concave, the supposition being that these latter were employed for the making of new fire.² One of the foremost of the Mexican gods was named Texcatlipoca, "Smoking Mirror," and is usually shown bearing a circular mirror from which smoke arises. In the drawings of him in which the mirror is shown from the side, it is apparently concave.

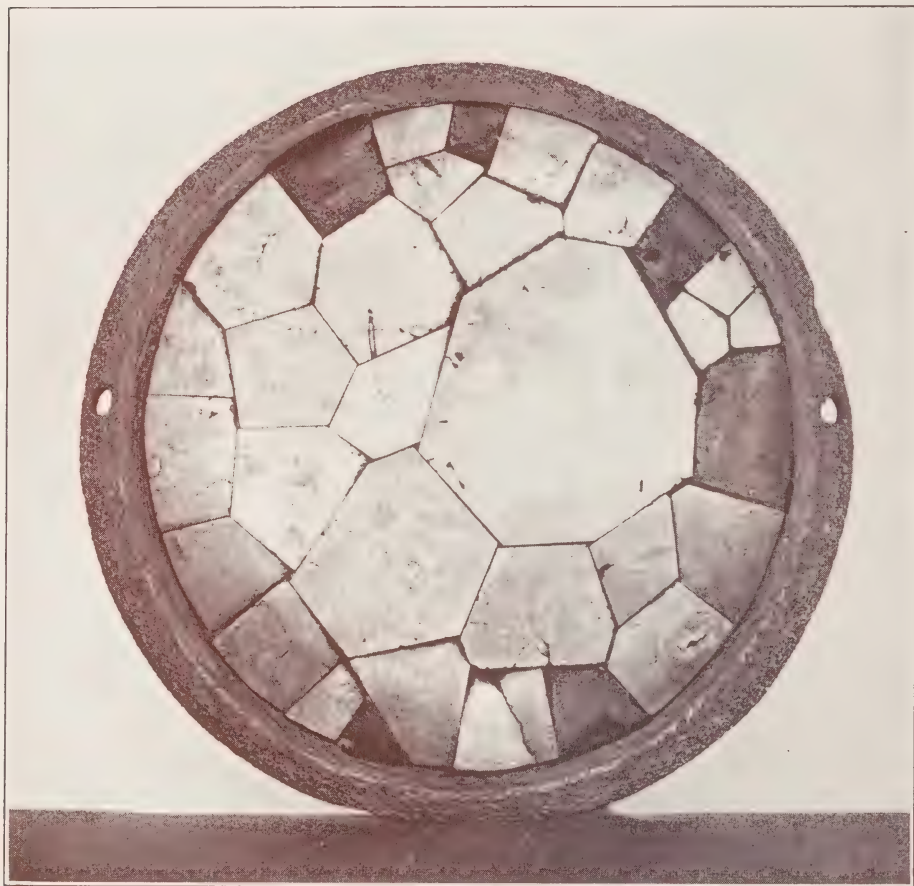
In Guatemala, pyrite mirrors were manufactured in a different manner, a mosaic being made of many thin plates of pyrite. Mirrors

¹ BERNADINO DE SAHAGUN, "Historia Universal de las Cosas de Nueva España" (in Lord Kingsborough's "Antiquities of Mexico," vol. VII, p. 398, London, 1831), lib. XI, cap. VIII, par. V.

² Cf. ERLAND NORDENSKIÖLD, "Miroirs convexes et concaves en Amérique," *Journal de la Société des Américanistes de Paris*, (n.s.) XVIII, 1926, pp. 103-110.

of this type are very rare and were apparently unknown in archaeological museums until very recently, the present article being probably the first detailed published description of them.

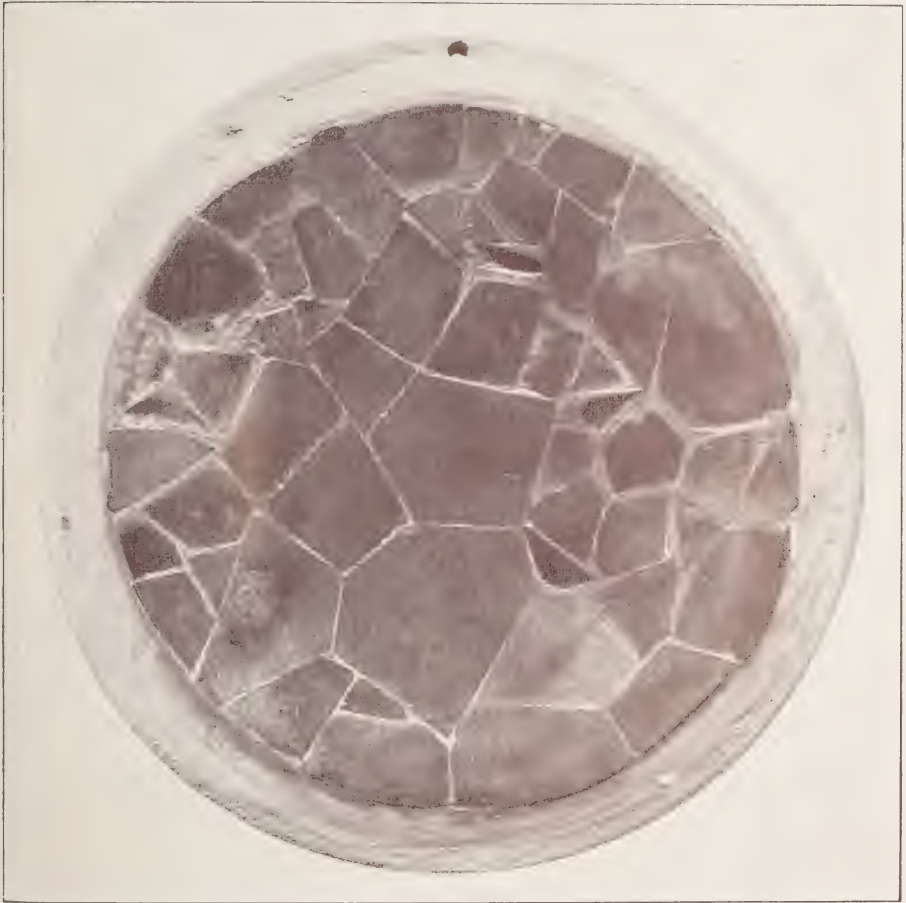
In his work, "Turquoise Mosaic Art in Ancient Mexico," *Contributions of the Museum of the American Indian, Heye Foundation*, New York City, Vol. VI, 1922, pp. 50, 51, fig. 7, Marshall H. Saville,



Pyrite Mosaic Mirror from Guatemala.

referring to excavations conducted by him in 1902 in graves and tombs in the mound of the great temple or teocalli at Cuilapa in the Zapotecan region of Oaxaca, Mexico, speaks of excavating a grave containing the skeleton of a child at a depth of six feet below the apex of the mound. He writes, ". . . the most interesting objects recovered were a pair of small disks of pottery, upon the flat upper surfaces of which were cemented small pieces of very thin, highly polished hematite, placed in mosaic. These last were undoubtedly

mirrors, although from the small perforation in the center of each, we are inclined to regard the pair as having been used also as ear-ornaments. One of these specimens should be in the Museo Nacional of Mexico where it belongs; the other is in the American Museum of Natural History. The latter, now illustrated for the first time (Fig. 7), is an inch and three quarters in diameter, and an eighth of



Pre-Columbian Circular Mirror of Pyrite Mosaic.

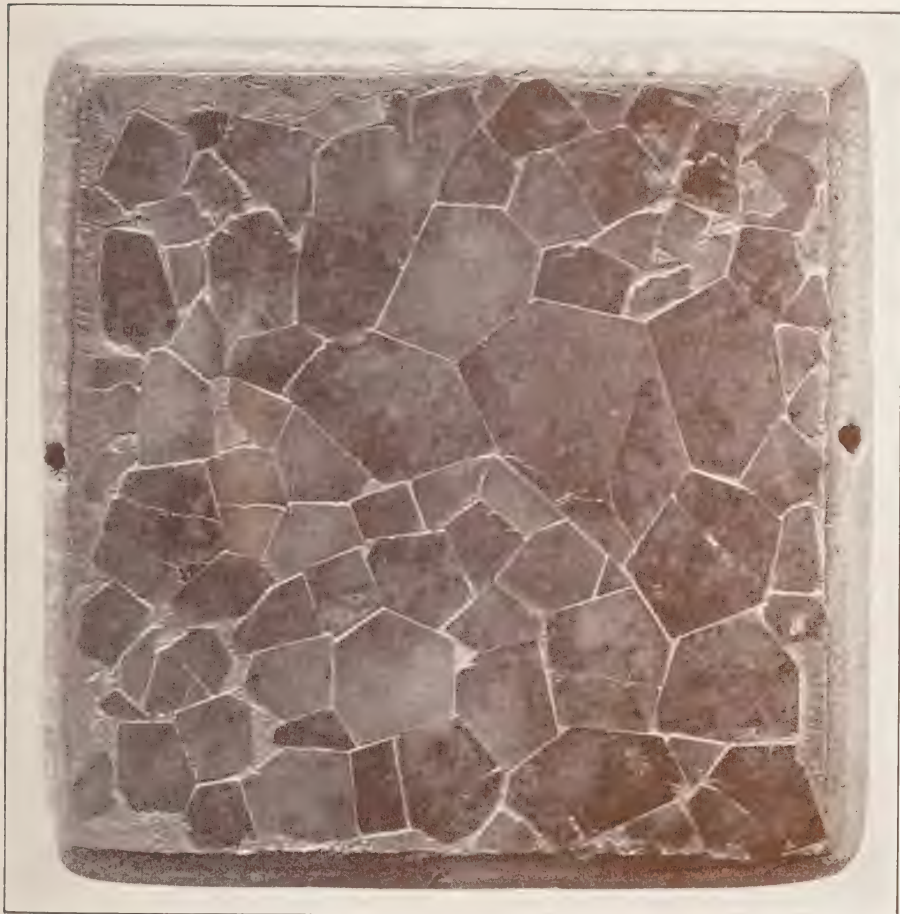
an inch in thickness." This specimen, although much smaller than those in the Museum of the University of Pennsylvania, is apparently of quite similar type. The Museum of the American Indian has recently secured a mosaic mirror from Arizona which, judging from photographs and descriptions, is identical with those in the possession of the Museum of the University of Pennsylvania, a remarkable instance of aboriginal trade.

These mirrors occur within a very limited region, their manufacture being probably conditioned by the natural occurrence of suitable nodules or large crystals of pyrite. Iron pyrite or as the mineralogists term it, iron disulphide, FeS_2 , is most frequently found crystallized on schistose or slaty stone, and generally with its surface oxidized, that is, rusted, to limonite, or ferric hydrate.

The department of Quiché in central Guatemala seems to have been the center for the manufacture of these mosaic mirrors, most of them having been found in the ruins of ancient villages between the Chixóy and the Koopóm rivers. The latter is an affluent of the Chixóy which is one of the names for the upper Usumacinta, and is also known as the Quimalá or the Negro. This region is at present inhabited by the Ixíl Indians, who speak a language of the great Mayan stock and whose ancestors played a part in the wonderful Maya culture which flourished in pre-Columbian days throughout most of Guatemala, Yucatan and parts of southern Mexico and western Honduras. In this Ixíl-Quiché region are found no marvellous cities with majestic buildings such as Palenque in southern Mexico, Quiriguá in Guatemala, Copán in Honduras and many cities in Yucatan, but the occurrence of mounds and pyramids of regular shape, subterranean vaults displaying excellent structural and architectural features, occasional sculptured statues and bas-reliefs, and especially the beautiful pottery and other small objects found in the stone-lined graves attest the high grade of culture which the ancient population had reached. These ruins apparently dot the country but are for the most part small, unknown and of slight importance. Generally they are known by the name of the nearest modern village or plantation, such as Chipál, Koopóm, Kixpék, Chihuatál, Ratinlixúl.

Four of the finest mosaic mirrors were found in one grave in a mound in the ruin known as Kixpék and three of these are here reproduced. They had been placed with a burial in a chamber-grave made of stone, which, unlike the majority of graves in this region, had neither caved in nor been despoiled. They lay in a row across the end of the grave in front of the body, all traces of which had completely disappeared. The dampness of the soil had, as in every similar case, caused the plates of pyrite to become loosened from their base, but, since they were undisturbed, it was possible to replace them and to restore the mirrors almost perfectly.

Three of these mirrors are discoidal in shape, the fourth one rectangular or square. Fragments of mirrors from other graves indicate that those of rectangular shape are always in the minority. This square mirror (N.A. 11610) measures four and three quarter inches on each side, while the circular ones (N.A. 11613, 11611 and 11612) measure respectively six, four, and three and three quarter



Rectangular Pyrite Mosaic Mirror

inches in diameter. The thickness of each is from three eighths to one half inch. The bases of all four mirrors are made of a rough porous pumice or tufa, relatively fine grained and with a pinkish gray tint. The stone is probably a product of fine volcanic ash, a formation which is doubtless common in this region of frequent volcanic activity. The bases of mirrors from other localities are more often made of sedimentary rocks, such as shales and indurated shales. The

sides of these bases are always sloping and beveled, those of the square mirror having a double bevel, and all possess drilled holes for suspension by means of which they were probably worn on the person, serving the double purpose of ornament and mirror. These suspension holes vary greatly in location. Most frequently two small holes are drilled close to the rim and at opposite points; often, however, a pair of holes is placed near the rim, and a large hole in the exact center is also common. Twin perforations near the center and connected by a groove are found occasionally.

The reflecting surface is made of a mosaic of many thin slabs of iron pyrite cut into polygons, the rectangular mirror consisting of about eighty pieces, the large circular mirror of fifty three. These plates of pyrite vary greatly in size and are of myriad shapes, no two being alike, just as no two crystals are alike in nature. The largest plate found, unfortunately not a part of a complete mirror, measures approximately two inches in width and two and a quarter inches in length. Also this is the piece which has the largest number of angles of those counted, nine in all. Five or six is the usual number of sides and angles, four being apparently the minimum. The fact that pyrite is a crystal and has a natural cleavage with flat surfaces and straight edges rendered the work of fitting the mosaic together simple, but even so it must have been a wearisome task to grind the edges to fit those of the neighboring plates and so to make a perfect surface. The work, however, was admirably done. All edges are perfectly straight and make tight junctions with their neighbors. Much of the original perfection has, naturally, been lost in the course of years and by restoration. The edges have rusted and chipped, a few pieces have been lost, others cracked and many doubtless incorrectly and irregularly replaced, but the restorations are admirable enough to suggest the perfection which must have characterized the undamaged specimens. The plates on the peripheries of the circular mirrors were cut with their outer edges in an arc so as to form a complete circle. The thin edges were in every case beveled so that although they fitted tightly together at the upper surface, the lower edges were sufficiently separated to permit the cement in which they were set to push up in wedge-shaped partitions or walls between the plates, thus cementing them more tightly to the base.

The average thickness of these mosaic plates is one eighth inch, the thickest measuring about three sixteenths. The upper polished surface is apparently the natural cleavage plane of the crystal, being

thus perfectly smooth and capable of taking a high polish. The lower surface is less even and frequently includes a thin layer of the shale which formed the foundation of the pyrite crystal. In other cases, such as that of the largest plate before mentioned, the slab was apparently sawn off from a large pyrite mass, the sawing having been from two sides with a line of breakage in the center.

Their age, you ask? Of course, that is often the point of maximum human interest. Unfortunately, archæological objects in America—excepting only the dated stelæ and other monuments from the Mayan cities—are undocumented, as are all other objects from all peoples who lack a written language. Their age, like their use, must be assumed. In the present case, it cannot be great—recent as compared with Tutankhamen, yesterday as compared with the earliest Sumerians of Ur, a moment ago as compared with the men of Neanderthal, Heidelberg and Trinil. That is, their age must be measured in centuries, not in millenniums. The high standard of the art and technique of the ceramics, jade, copper and gold ornaments and other objects accompanying the mirrors indicates a late period. Moreover, iron pyrite is not a stable mineral, oxidizing or rusting quickly in damp ground, and completely disappearing within a few centuries. We are probably safe in stating that our mirrors do not greatly antedate the Spanish Conquest in approximately 1525. They may, however, be somewhat older. When archæology in America shall have been studied as intensively as it has been in Egypt and in Greece, we shall, at least in the regions of higher culture in Mexico and Central America where we have the dated Maya monuments as criteria, be able to date with approximate accuracy the type of ceramic, new art motive, improvement in technique, and other points of cultural development, but that time is not yet. Before it can come, we must have much more careful exploration, excavation, research, study and publication.

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SUMERIAN SCULPTURES

BY L. LEGRAIN

ARCHÆOLOGISTS in the field have many hard days, but they have also a delightful reward when out of the trenches come new documents which throw light on the past, dispose of old theories and help to rebuild a truer history. One of the best pieces of sculpture discovered at Ur by the Joint Expedition during its Fourth Campaign was the head of a girl in white marble with inlaid eyes of shell and lapis lazuli, a very important monument which forces us to modify our whole conception of Sumerian art. There is here not only an extraordinarily finished delicacy of technique but an ideal of beauty not hitherto found in the same degree in the early sculptures of Mesopotamia.

Before 1881 Sumerian art was practically unknown. Our first knowledge of this ancient civilization dates from the methodical classification by Léon Heuzey of Sumerian monuments from Lagash in Mesopotamia in the Louvre Museum. Sumerian sculptors for fifteen hundred years before the days of Abraham and the Amorite kingdom of Babylon had been busy carving statues, statuettes, bas-reliefs and plaques out of shell, limestone, alabaster, and soft and hard diorite. One by one their monuments entered the museums of the Old World, which long remained incredulous both of their antiquity and of their artistic value. Careful publication and minute study, however, have left no room for doubt. There is a group of eight statues in the round, some of natural size, representing the patesi Gudea, a Governor of Lagash in B.C. 2400. The style and technique represent a coherent and well determined period of the sculptor's art, an epoch in the archæological field. The master sculptor has now left the primitive stages far behind and can attack hard stones with a sure hand and positive knowledge.

We may distinguish three classical periods of Sumerian sculpture: the Sargon and Naram Sin period, about B.C. 2600; the Gudea period, about B.C. 2400; and the Third Ur Dynasty period, about B.C. 2200. The Sargon and Naram Sin period is named after the kings of Agade, who founded a great empire. Their riches and power found natural expression in great artistic monuments. They belonged to a Semitic race named Akkadian, after their capital Agade or Akkad, a city not far from Babylon. They lived in the northern part of Mesopotamia, and mixed with the Sumerians, emulating their earlier attainments and improving their formulæ of art. Their monuments, statues, and bas-reliefs are comparable with the best sculptures of Lagash in the Gudea period, but their modelling is finer, their proportions are more elegant, and they have in large scenes a more spirited sense of composition. Their masterpiece is the stela of victory of king Naram Sin, representing the king and his troops pursuing his enemies to the summit of the hills. The enemies fall prostrate under his feet and beg for mercy. The king stands in a noble attitude in full armour, with weapons in hand, stops the pursuit, and spares the last survivors.

Sumerian art reaches its full development in the Gudea period. It then becomes remarkable for simplicity of attitudes, for a sober and even severe style realized in large smooth surfaces on reliefs and statues. The sculptors have attained a national type of workmanship very different from the Egyptian. They are less preoccupied with proportions and they show a greater originality in details. Their statues are often short and thick set, with heads too large for the bodies, but the modelling of the nude parts, in spite of the hardness of the stone, the minute chiselling of hands and fingers, is very close to nature. The eyes are large, with straight and deeply cut eyelids slightly drawn upwards in the outer corner. The eyebrows are prominent, outlined by a deep furrow above and below, and their twin arcs always meet above the nose. These heavy joined eyebrows give strength and color to the face and are characteristic of Sumerian art, though Assyrian and Persian sculptors treated eyes and eyebrows in the same manner.

The eye sockets are in many cases deeply incised and hollowed to receive an inlaid eye made of a piece of shell. The iris may be a piece of black bitumen or of blue lapis lazuli. The Egyptians used paste or coloured stones in the same way. Large eyes of chalcedony, onyx, or carnelian, some of them bearing a cuneiform inscription,

presented by the Cassite kings about B.C. 1400 as votive offerings in the temple of Nippur, were not all destined for use as inlay, but were inspired by the same old Sumerian tradition. Even the Greek chryselephantine statues combining gold and ivory are not independent of Eastern influence.

The noses of statues are generally broken, but when preserved they are usually found to be almost straight, or only slightly curved, with a rounded and rather large tip. The chin is small and firm. The cheeks are framed in a short oval with well marked cheek bones, akin to the Asiatic type found also in Syrians, Jews and Armenians.

The short proportions so noticeable in the Sumerian sculptures are especially marked in the massive necks, large chests, and round shoulders, with shoulder line attached very high below the ear. An expression of dignity and force redeems the awkwardness of the stumpy figures.

The common attitude of many statues of standing or seated worshippers with their hands clasped, the right in the left, expresses the respectful immobility of the Oriental servant awaiting the orders of his master. Many a statue bears a votive inscription engraved on the sides of the throne, or even on the garments, across the shoulders or round the knees of the figure. Such statues were commonly deposited in a sacred place in front of the statues or emblems of the gods. Their attitude, even in the smallest statue, is a religious one. They are votive offerings to remind the gods of the good deeds of the ruler, and to obtain a special blessing on his life and posterity. Unlike the Egyptian sculptor aiming at the material likeness which was so important for the cult of the dead, the Sumerian sculptor produces impersonal heads of a conventional type.

Feminine statuettes are not rare. They were not excluded, as they generally were by the Assyrians. The severe Sumerian artist succeeded in his efforts to express feminine grace by a progressive attenuation of the national type to a point where the close resemblance to the Greek type is very remarkable. The same Greek feeling is noticeable in the first study of the folds, relief and arrangement of the garment attempted by the Sumerian sculptor. It is quite unknown in Egypt and Assyria.

This refinement and softening of the Sumerian type is especially evident in the third classical period, that of the Third Ur Dynasty, about B.C. 2200. The progress of schools of sculptors and the devel-

opment of artistic taste had naturally brought about a change from the archaic types, where square and angular forms betrayed the original plan, by way of the progressively less severe forms of the Gudea period, to the smooth, slim, rounded forms of the third period, which aimed more and more at elegance.

Before the three classical periods representing the artistic efforts of a mixed population of Sumerians and Akkadians, must be placed an archaic, more purely Sumerian period, before B.C. 3000. No one who has studied the stela of the Vultures, the most important monument of this period, will ever mistake or forget the early Sumerian type with enormous curved nose, receding forehead, large almond shaped eyes, broad ears, short neck and wide chest, angular elbows, head all shaven and shorn, except in the case of the king and the god, finally the remarkable garment in the form of a woollen flounced petticoat, with thickly set hanging lappets in imitation of a fleece.

The small collection of stone heads, statuettes and reliefs here presented belongs to the best periods of Sumerian sculpture between B.C. 2600 and 2100. They were discovered by the Joint Expedition of the British Museum and our Museum, by the Museum's Expedition at Nippur, or they were acquired by purchase. With the exception of the sculptures, which, in the division made by the Governments at Constantinople and at Baghdad, were not assigned to the Museum, the monuments are the property of the Museum and will take high rank in the Ur room between the great stela of Ur-Nammu and the archaic statues and reliefs of Tall-al-'Ubaid. They will allow, for the first time in this country, a close view and study of the wonderful Sumerian art which surprises many and leaves the imagination marvelling at the beginnings of civilisation.

I

THE WHITE MARBLE HEAD WITH INLAID EYES¹

The small head of a girl with long undulating hair hanging over her shoulders and confined about the temples by a thin scarf, rolled like a coronet, is the gem of the collection. The eyeballs are inlaid, consisting of a piece of shell originally white but now turned gold-brown with age. The irises are small discs of blue lapis. The

¹ Height 95 mm. C.B.S. 15228. Ur Field Catalogue 6782.

vividness of the colors adds to the charm of the deep sunken eyes and gives life to the small round face with its quiet, thoughtful look. Inlaid eyes of blue lapis were previously known to have been used for the decoration of the figures of animals—of a bull's head in copper and a lion's head in stone—but they are seen here for the first time applied to a human head.



White marble head of the Goddess Ningal with inlaid eyes of shell and lapis lazuli. Found at Ur. In the University Museum.

The head was found in 1925 at Ur, within the limits of the temple towards the southern angle, in ruins dating about B.C. 2100, when the kings of Larsa were lords of Ur, but it is not otherwise connected with the ruins. It is an example of the beautiful, simple work of the best period, about the time of Gudea. The simple crownlike headdress, the long undulating hair simply parted, passing over the ears and covering the neck and shoulders, are distinctive notes in the costume of Sumerian women of that period. A five-row necklace encircles the rather short neck.

The great surprise is to find in the delicately carved and beautiful face so close an approach to the ideal Greek type. The eyebrows are prominent, meeting above the nose, and they are emphasized according to the Sumerian rule, but the Oriental expression has been tempered with a gentle grace. The large almond shaped eyes are beautiful and natural, and are drawn upwards at the corners with the slight affectation of most of the heads of the Gudea



Head of the Goddess in profile.

type. The small chin and rounded oval face are quite charming, and so also are the parted lips of which faint traces remain. The nose is broken as usual. We can only conjecture that it was almost straight, with a slight curve at the end, as in the small "Longpérier" statuette of the same style in the Louvre.

The statuette when complete must have represented, as the Louvre statuette does, a young girl seated on a cubiform throne, with her hands modestly clasped on her breast or holding a round ampulla full of perfumed oil, a symbol of the prayers and offerings

which were the prelude to a ritual sacrifice before the statues of the gods. The long floating hair of Ishtar, goddess of love, is the distinctive mark and privilege of the higher class: kings, princes, and princesses, and also of the high priestess, who is generally a sister or daughter of the king. Her statue as a worshipper placed in the temple before the statue of the god was a votive offering for the life and the long and happy reign of the ruler. In the same manner the young Samuel was devoted by his mother to the service of the God of Israel. An inscription on the throne may have formulated the votive prayer and defined the memorial purpose of the statue, as we shall see in the case of the monument next described.

II

THE BLACK DIORITE STATUE OF NINGAL, THE MOON GODDESS¹

This statue has been restored from many fragments found in 1926 scattered among the ashes and on the pavement of the Ningal temple at Ur. The enemies who destroyed this delicate work of art were not the Elamites, the hereditary enemy from the eastern border, but newcomers in the Euphrates plain, the Amorites of Babylon. A Semitic race like the Akkadians, they hated the Sumerians of the south, and had no rest until they had broken their spirit of independence, destroyed the walls of Erech and Ur, and opened for their own profit the trading road toward the sea. The plundering of the temple and the cruel destruction of the monuments erected by former kings were invariable incidents of these military expeditions. About the same time Abraham and his family left the desolated city and moved north to Harran, a junction of the caravan roads, where the Moon God had another sanctuary and trade was more prosperous.

This small female figure sitting with quiet grace and dignity on her square throne is not only an extremely delicate piece of work, but is invaluable as a well dated record in the history of art in Sumeria. On three sides of the throne is a long inscription recording the dedication of the statue by Enannatum, the high priest, son of Ishme-Dagan king of Isin, who rebuilt the temple of Ningal. The statue, therefore, was carved within ten years of B.C. 2080.

¹ Height of the restored statue 24 cm.; width at the elbows 105 mm.; base 12 x 10 cm. C.B.S. 16229. Ur Field Catalogue 6352. Restored by Miss M. L. Baker.



Black diorite statue of the Goddess Ningal. The inscription records the dedication of the statue by the High Priest, Enannatum, ca. B.C. 2080. The head and shoulders are partly restored. In the University Museum.

The figure of the goddess has still that beautiful simplicity of attitude and refined elegance imparted to feminine statuettes since the Gudea period. She is dressed in the best court style. Her long floating hair is confined by a simple diadem, and she wears a long woollen tunic of material known as Babylonian kaunakes. Long hair and a garment of kaunakes are always confined to gods and kings. The statue is most likely a figure of the high priestess, the daughter of the king and the personification of the Moon Goddess on earth. Her hands are clasped, the right in the left, in an attitude of respect. Nails and fingers are carved in minute detail. This humble attitude need not surprise us. All statues with a votive inscription were placed in a sacred place, facing the images of the gods or their symbols. This one is a votive offering for the life of the king. Above the diadem six (?) copper nails still fixed in the original stone show that a mitrelike ornament probably of gold or of copper gilt adorned the head of the statuette. The mitre with one or four pairs of horns is the traditional emblem of divinity and would prove this figure wearing it to be that of the goddess herself. The respectful attitude of the clasped hands is not exclusively reserved to servants but might express the submission of Ningal to her husband, the Moon God. It is found in other statues of goddesses, as we shall see in the next two examples. Only Ishtar is represented as a queen and a warrior, armed with bow and scimitar or holding ring and scepter. The older Sumerian goddesses play the minor parts of faithful wives and chatelaines in charge of the cattle, the fish pond, the poultry yard, the pantry, and the cellar.

Enough was left of the statue of Ningal to allow a complete restoration to be made. The crown of the head with a line of hair over the eyes and the ears is original. Part of the base and of the skirts, both elbows, the right shoulder, and the lower part of the face are restored. The missing face was the most disappointing defect in the statuette. It has been happily restored and copied from a beautiful Sumerian statue from Lagash in the Louvre, which was named, after the headdress, "*la femme à l'écharpe*" and is probably contemporary with Gudea and also an example of the best classical period. Perhaps the neck ought to be a little shorter, as well as the lower jaw, the chin more prominent, and the oval of the face not quite so refined. But these are minor defects in a reconstruction otherwise true to the original type, in which we may enjoy the beauty and harmony of the work of art without undue archæological scruples.



Side view of the statue of the Goddess.

The tunic worn by the goddess and made of the special woollen material, the kaunakes, is frequently represented on cylinder seals but not so often on statues. It represents not a flounced garment but, in a conventionally symmetrical way, a material with long hair woven in imitation of the natural fleece of animals. The hair of the kid presented by a worshipper (the fragment of sculpture illustrated on page 246), is arranged in the same conventional way. The hanging lappets of wool are disposed in zones following the lines of the weft, as in the modern Greek *floccata*. It has long hair only on one side. The rectangular shawl of kaunakes thrown over the left shoulder was worn by gods and goddesses and persons of high rank. On the present feminine statue it is made like a tunic with sleeves. In Assyria and also in Persia *floccata* is reserved to the gods. In Greece it is often a sumptuous covering on festival couches.

The thick masses of hair of the goddess fall low on her shoulders in lovely curls in truly royal style. The two shorter curls resting on her breast in front in pre-Victorian fashion have been copied from the statue next described, which was discovered in the same part of the ruins in the Ningal temple. They are usual in the representations of the goddess Ishtar, and have a juvenile grace of their own. The necklace of five strands is due to the same inspiration, as well as the loose upper border of the tunic resting modestly and naturally on the shoulders.

The bare feet of the goddess rest solidly on the ground and, so far as they are represented, are a scrupulous imitation of nature, true to the smallest details. In statues representing a standing posture, the fore parts of the feet only are carved, within a small hollow, in order to avoid the breaking of the statue by a too great weakening of the base. This is a Sumerian invention, just as legitimate as the trunk or support adopted by Greek sculptors. In seated figures, the feet and the lower parts of the garment are free on either side, but the heels are still engaged in the cuboid block out of which the seat of the goddess is carved.

The seat, in its severe simplicity, has style and elegance. Seat, legs, and rungs are a fine development of the plain cubiform seat of earlier statues. Knobs of metal protect the feet and raise the seat above the ground. Their ellipsoidal curves make a pleasant contrast to the straight lines of the rest of the seat. The flat panels are filled with the inscription, which respects the limits of the frame with the delicate restraint and sense of harmony of true artistry.



Back view of the statue of the Goddess showing the long hair.

The copper nails still visible round the base show that it was decorated with applied ornament, a band of metal or engraved pieces of shell. Two holes beneath the base were used to fix it on a pedestal. A rectangular hole cut within the neck and visible before the reconstruction suggests that the head was carved separately and fixed on.

The Museum has in this small statuette a very good example of Sumerian art. The next, and in this case a complete statue, was retained by the Iraq Museum in Baghdad. It was discovered at the same time and place as the fragments of the Ningal statuette, and represents another familiar goddess.

III

A DIORITE STATUE OF THE GODDESS BAU¹

This small squat figure as soon as discovered at Ur became familiar among the Arab diggers as "Mother Goose," because of the four geese, two of which support her feet while two flank her throne. This is not a real but a symbolic seat, formed by three mighty undulations of the waters of the Euphrates. Does not the Lord Chancellor in England still sit on a sack of wool for a reason connected symbolically with his high office?

Bau is the wife of the god Ningirsu, the patron of Lagash, a city forty miles north of Ur on the great cut, the Shatt-el-Hai, joining the Tigris and the Euphrates. The old city is on the border of the marsh land, a paradise for all kinds of water fowl, but especially for ducks, geese and pelicans. While her husband was a great warrior and bore in his coat of arms the eagle, the famous *Imgig* bird of Lagash, Bau was concerned with fowl of a humbler sort, those which served as food.

The fame of our little goddess spread rapidly. Local sheikhs left their mud palaces to pay her a visit in the camp. Notabilities and boy scouts from the nearest town came on special tours to see her till the Iraq government became aware of her existence and claimed her for its Museum at Baghdad, as one of the oldest representatives of the land and as a work of art rare for the completeness of its preservation.

The attitude of dignified respect expressed by the clasped hands is the same as in the Ningal statue. Identical is the tunic of *kaunakes*,

¹ Height 29 cm. Ur Field Catalogue 6779.

with sleeves and seven zones of thrummed flocks, the necklace of five strands, the bare feet, the pendent Victorian locks. The short neck and massive head are very characteristic of Sumerian art,



Black diorite statue of the Goddess Bau seated on her symbolic ducks and geese. B.C. 2400. Found at Ur and now in the Baghdad Museum.

which was not too much preoccupied with actual proportions. They recall a very squat statue of the patesi Gudea now to be seen intact in the Louvre. We must reconcile ourselves to that disregard of true proportions, which, however, did not shock the Sumerian artist.

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The real difference from the Ningal statue is in the fashion of the headdress and in some technical details in the carving of the face. The eye sockets are hollowed and prepared for the inlay, which is



Side view of statue of the Goddess Bau showing her long locks and the goose at her side. Ca. B.C. 2400.

missing. The nose was carved separately and is also missing. We may suspect that it was cut to repair an accident to, or a defect in, the stone. The headdress is not a simple diadem but a scarf covering the top of the head and rolled about it like a coronet. The long



Statuette of a seated goddess. Her throne is decorated with measuring pots.
Found at Nippur.

hair, except for the two curls in front, is not allowed to hang loose, but is tied in the back into a matronly chignon. The short neck shows below and the shoulder blades are carefully modelled under the thickness of the woollen garment. The same pre-Greek sense of folds in the garment is visible in the curve of the back and below the arms. The naïve primitive charm of the statuette is scarcely marred by the plumpness of the figure.

IV

A HEADLESS STATUETTE FROM NIPPUR¹

The headless statuette from Nippur, of which we have only a photograph, is of the same style, but much coarser in execution. The attitude of the seated figure with the hands clasped, the sleeved tunic of kaunakes, the cuboid form of the throne, the bare feet not completely disengaged from the block, belong to the same age and tradition. The statue, as far as one can judge from a photograph, seems to have been cut in soft limestone and not in diorite. The drawing of the fingers and the undulating lines of the kaunakes show a carelessness which we might expect in the poorer material.

The main interest of the figure is derived from the obvious symbolic meaning of the quart and pint pots with which her throne is decorated. We know that in the temple of Lagash there was a cellar of the best mountain wines. We have lists of the red and white wines of the plains, hills, and mountains from the cellars of King Nebuchadnezzar, and the German excavators suggested that the vaulted cellars below the so-called hanging gardens of Babylon—one of the wonders of the world—must have been the coolest place to preserve the sealed jars. Four types of pots are represented on two sides of the throne. There must have been two other types on the third side of which we have no photograph. One is a round cylindrical vase. Alabaster vases of that form, with a cartouche of the name of the Moon Goddess, have been found at Ur and are preserved in the Museum. The second vase, the unit of measure called by the Sumerian a *qa*, is very interesting for its conical form. Placed in the hands of the gods, full of perfumed oil, if not of choice wine, it was a symbol of prayers and offerings, rich in meaning. The second and third vases are larger receptacles well represented in our collections of pottery from Ur and Nippur. Whether they

¹ Probably from the Fourth Nippur Expedition. Photographs Nos. 224, 225, 226.



Back view of statuette of seated goddess showing two different measures in relief on the throne.

are standard measures or have some other special purpose has yet to be established.

V

A WOMAN WORSHIPPER WEARING THE FRINGED SHAWL¹

This miniature work, brought from Babylon by Dr. J. P. Peters in 1890, is one of the early acquisitions of the Museum. It is also an exquisite piece of Sumerian art. The modelling of the body, neck, throat, shoulders and of the back below the shawl belongs to the best period after Gudea, when severe simplicity was tempered with grace and elegance very close to the ideal of Greek art. The little statuette is cut in soft limestone of a very fine grain. For harmonious proportions and delicate womanly charm it can compare with two beautiful statuettes of the same style, "*La femme à l'écharpe*" from Tello, and an ivory statuette from Susa. It was entered in the catalogue of the section—C.B.S. 8960—with seven other pieces, as bought by order of Dr. J. P. Peters, through the Arab Obeid, on July 1, 1890, for 311 piasters, and was said to come from Babil. It is high time that this charming Sumerian lady should be presented to readers of the JOURNAL.

She has the traditional attitude of the worshipper standing in front of the god, with hands clasped, awaiting orders with respectful dignity. Her type is decidedly Oriental, with slightly curved nose, round cheeks, fleshy lips, and the generous lines of full-blown womanhood. The eye sockets, deeply sunk, were prepared for inlay according to the ancient tradition which aimed at greater lifelikeness of the face through a bright contrast of colors. The eyebrows were made of a colored paste laid in a deep arched furrow. The same technique is seen in old terra cotta masks where eyes and eyebrows were of black bituminous paste inlaid. The same taste for polychromy may explain why the back of the head of the statuette is flattened beyond the true proportions and besmeared with bitumen perhaps in imitation of a mass of dark hair. Or an artificial wig and mitre like a crown were perhaps added and fixed with bitumen on the head. The bright metal and the dark hair would have combined in a very happy effect. A deep groove cut on the back in the form of the letter Y with a hole at the meeting point of the three branches suggests the fixing of an artificial ornament behind. The common

¹ Height 87 mm. C.B.S. 8960.

ornaments, a necklace of four strands and bracelets showing a similar disposition of four rings soldered together, are cut in the stone in low relief.

The elegance and simplicity of the dress deserve attention. It is no longer a tunic of kaunakes with sleeves, of that best material



Limestone statue of a high priestess, dressed in the style of the Gudea period. Ca. B.C. 2400. Found in Babylon. In the University Museum.

reserved to gods and goddesses. The long rectangular shawl left intact as it came from the loom is draped about the body with surprising sculptural effect. It is spread in front across the breast, passing below the arms, and is crossed behind, with the two extreme angles thrown over the shoulders and hanging in front where they are held by the folded arms. The result of such drapery on the living model is charming and resembles very much the mode of

wearing the Spanish shawl in the country of its origin. Safety pins or fibulae may have contributed to the security of the whole adjustment. The fringes are the thrummed ends of the warp. Embroideries have been added to the sides of the weft. The long furrow below the left arm may have been cut afterwards for some inlaid ornament or for making repairs; or it may indicate a natural opening of the shawl as in certain statuettes from Lagash and Susa.

VI

A DAUGHTER OF SARGON, HIGH PRIESTESS OF UR¹

This disk of calcitic alabaster, round like the full moon, with a bas-relief on one side and the remains of an inscription on the other, is an important monument of art and history. The relief shows a sacrificial scene. The high priestess in her best flounced dress presides over the ritual libation poured on the altar by the shorn and shaven priest. She is followed by two other priests carrying palms (?), a staff of office (?), and probably a pail of holy water. The streams of liquid are received in a large hourglass-shaped vase, placed on the lower tier of a pyramidal stepped altar. Five steps are still visible. The scene is a reproduction of a ritual act in the temple, probably on a special feast day, when the full moon was on high over the ziggurat in the first hours of the night, and, we may conjecture, in spring when the palm trees are in bloom. Why not in a palm grove when the eve was cool? Texts are known ruling that the king himself must perform this rite under such circumstances. The whole composition has the simplicity and elegance of a Greek "theory" or sacred procession. Though badly mutilated, the piece shows a high degree of artistic skill and a real bas-relief technique. Each figure is drawn separately with a complete value of its own on an open field, but is connected by gesture or attitude with the single religious action. The proportions are natural, even elegant, and lack the clumsiness of some of the squat figures of the Gudea period.

The inscription on the back completes the value of the monument. It records its dedication by En-hedu-anna, high priestess of Ur, wife of the Moon God and daughter of Sargon, king of Kish. It is our earliest and a well dated monument. In this survey of Sumer-

¹ Diameter 265 mm. C.B.S. 16665. Ur Field Catalogue 6612.

ian art, it ought to come first as representing the first classical period. That the high priestess should be at the same time wife of the Moon God, playing on earth the part of Ningal, is a welcome piece of information, linking together the chain of evidence. The last king



Calcitic alabaster disk found at Ur. The relief shows the high priestess presiding over a libation. According to the inscription on the back she is a daughter of King Sargon of Kish. Ca. B.C. 2700.

of Babylon, Nabonidus, installed his daughter as high priestess at Ur, thus restoring a tradition going back to another high priestess, sister of Rim-Sin, king of Larsa about B.C. 2000. Two hundred years earlier, Me-Enlil, a daughter of king Shulgi, may have occupied the same position of high priestess. This is certain in the case of the daughter of Sargon about B.C. 2600. The same interpretation must

apply to the archaic limestone bas-relief, published in the MUSEUM JOURNAL, September, 1926, with details such as the entire nudity of the priest, which belong to a very primitive period before B.C. 3200. For nearly two thousand years we can follow and assist at the daily ritual at Ur as it was performed long before and after the days of Abraham. We can see with our eyes the rôle played by the high priestess, a daughter or sister of the king, presiding over the ritual acts performed by the shaven priests attached to the house of the Moon God. The princess is also the wife of the Moon God, she can reveal his secrets and deliver oracles in his name. She truly unites in her person human and divine powers. And we must not be surprised to see a king of Babylon, Adad-apal-idinam, claim a close relationship—*emu*, father-in-law—to the Moon God. Many kings of Larsa before him were raised to the glory of beloved husbands of Ishtar.

The high priestess En-hedu-anna wears the sleeved tunic of kaunakes well befitting her as Moon Goddess on earth. Her long hair hangs down her back and three braids rest on her breast. A crownlike diadem made of a rolled scarf (?) is tied about her head. Her right hand is raised to the level of her face in token of adoration. Her left hand is too much mutilated to show whether she carried a staff or sceptre. By rare good fortune the small fragment of her head was recovered in the ruins of the Ningal temple at some distance from the other fragments which were all scattered over the pavement of about B.C. 2100. The rounded nose, thick lips, large almond eyes, and deep incised eyebrows of the feminine Sumerian type are preserved here better than in the marble head with inlaid eyes.

The libator priest wears a tight linen tunic which probably passed over the left shoulder, leaving the right arm and shoulder bare. He holds with both hands clasped round the foot the vase with a long spout which was used for the libation. This is a traditional type of sacred vessel and a traditional gesture. The hour-glass-shaped vase in many cases had green palms and bunches of dates planted in it ready to receive the stream of water. The altar with five steps is a new model of the stone altar with a ledge known from ancient seals.

This monument, now the property of the Museum, was discovered at Ur in 1926. Each figure of the relief is 9 mm. high.



Detail of calcitic alabaster disk in which may be seen the tunic, diadem, and headdress of the high priestess.

A DIORITE HEAD OF GUDEA¹

This new example of the classical turbaned head of the famous governor of Lagash is a happy addition to the small collection of statues in the Museum. It was acquired from a dealer in antiquities and was reputed to have come from Tello, the modern site of Lagash. It is well preserved, the nose is intact, which is a rare piece of good fortune among so many mutilated heads.

Gudea was a great ruler and a great patron of art. He had a love for that high form of art, sculpture in the round, and caused statues of himself to be cut by the dozen in hard diorite and placed as memorials in all the shrines and chapels of his pious city. Inscriptions are carved on the front, back, or sides of such statues and on the garments or on the seat, each devoted to a special god or goddess and containing graphic, ritual, mythological and sometimes historical details which explain their purpose and help us to hear the very voice of the past. Of course all these statues were not carved and erected at the same time, but represent different periods in a long reign. Despite the school conventions of the Sumerian type, an attempt at portraiture is obvious. Some heads represent the young Gudea, some belong to his mature age. His attitudes are also diversified. He is seated or standing, with his hands clasped, or holding on his knees the famous plan drafted with the rule and stylus of the architect on a large soft clay tablet.

The history of these statues and of their discovery forms an interesting chapter of Sumerian research. They were practically the first monuments which revealed to the world, about 1880, the importance and achievements of the old Sumerian school of sculptors. Eight statues, four seated and four standing, some of them a little over life size, were found in the same part of the ruins, in the same court and anteroom where they had been assembled, more than two thousand years after Gudea, by the last local ruler of Lagash shortly before the Christian era. His name was Adadnadin-ahe. In his inscriptions he used both the Aramaic and Greek languages, as the modern inhabitant of Iraq uses Arabic and English. His collection of statues is now the glory of the Louvre Museum. Unfortunately, not one of these statues was found with its head intact and the few heads with or without turbans which were then recovered in the

¹ Height 10 cm.; width of the turban 83 mm.; ear to ear 6 cm. C.B.S. 16664.

ruins did not fit the bodies. Not until 1903 was a body found to which a turbaned head discovered three years before was exactly fitted, and archæologists had the satisfaction of seeing a complete Sumerian statue. The result was rather disappointing, the squat figure being disproportionately short and the head much too large for the body. The beautiful modelling of the head, hands, feet, and



Diorite head of Gudea. Probably found in Tello-Lagash. Ca. B.C. 2400.
In the University Museum.

of the nude parts in general, the first known attempt at representing folds in the garment, and the masterly technique in the cutting of hard stone compensated in a certain degree for the disregard of proportions.

Another important discovery of statues of Gudea, of his son, or of a successor, apparently assembled in one room, was made in Lagash two or three years ago by Arabs digging secretly. They found their way into the European and American markets and were

acquired at considerable expense by various museums. The best statue of Gudea, and a complete one, with a turbaned head, is now the pride of the Glyptotheca Ny-Carlsberg in Copenhagen. A statue of Ur-Ningirsu, son of Gudea, has been added to the Louvre collection. It has no head, but is cut in a rich brown gypseous alabaster and has a remarkable base decorated with figures in relief



Side view of head of Gudea, showing the almost straight nose.

of bearded servants presenting offerings. Another statue of the adolescent Gudea with head, but no feet, and dressed in an elegant embroidered shawl has been published by Scheil and appears to be in private hands in Belgium. A fourth statue of Ur-Ningirsu, high priest of Nina at the time of King Ibi-Sin, seems to have found its way to Berlin. Like the statue in the Louvre, it has no head. The Gudea head recently published by the Boston Museum of Fine Arts, most likely originating from Lagash, was bought in Baghdad between

1865 and 1870 and was in Ireland in private hands for many years, ignominiously used to keep a garden door open. This and the University Museum head are the first two examples to be exhibited in this country of these wonderful Sumerian sculptures, while the Louvre will long remain the treasure-house of Sumerian art with its nine large size statues, four separate heads, and over twenty statuettes.



Head of the Gudea type found at Nippur. The youthful face shows the same straight nose as in the other head of this type.

The style of the diorite heads of Gudea is well known and has been minutely studied. We may sum it up in a few lines. The whole work is sober, even severe, is cut in hard stone, and still shows the primitive plan, with an attenuated grace. The eyes are large, almond shaped, with eyelids deeply incised and drawn upwards, by a peculiar mannerism, towards the outer angle. They are, however,

straight and not Mongoloid. The eyebrows are prominent, arched, underlined, and meet above the nose. The nose is surprisingly straight and approximates the Greek profile. The mouth is well formed and small, like the short protruding chin. The rounded cheeks are almost oval, with well marked cheek bones which give strength and character to the face. The quiet dignity of the features is tempered by a placid smile. The governor of Lagash has nothing of the imperious warlord of Assyria. His traditional authority rests on a religious basis, the patesi being father of the city and high priest in the temple. That is why his head is shaven like those of the rest of the priestly community. The freshly shorn scalp is covered with the woollen turban so characteristic of the Gudea period. The mass of the headdress has been simplified and reduced to a symmetrically folded contrivance surrounding his temples. The surface shows a multiplicity of minute round reliefs disposed in the squares of a regular chess-board tracery. The round reliefs, generally decorated with a spiral, represent a kind of chinchilla or embroidered cloth. The general aspect suggests the modern Astrakhan cap of Persia. But no one who has an experience of the torrid climate of Lagash would think for a minute of wearing a fur cap in that region.

VIII

HEAD WITH A TURBAN FOUND AT NIPPUR

Another head of the Gudea type was found at Nippur during the Fourth Expedition but was not assigned to the Museum. It was entered in Haynes's diary on the first of August, 1899, as follows: "Work on the Temple Hill. A small head of a statuette of the Tello type, with turban on the head, showing the general kind of kefiéh as the Arabs wear today in a different manner, was found near the east corner and also near the position of the torso found in 1896." We have two photographs (Nos. 19 and 496) of it which were taken in the field.

The technique is much the same as that of the preceding head, but with softer lines of eyes, nose and eyebrows. It represents a more juvenile type. The nose is perfectly preserved. It is short and straight. The eyes are drawn upwards at the outer angles, the eyebrows meeting but less marked than usual. The stone must have been diorite, but this is not stated.



Fragment of stone statue representing a worshipper offering a lamb or kid; the conventional treatment of the fleece resembles that of the cloth known as kaunakes.
Found at Nippur. Ca. B.C. 2300.

IX

WORSHIPPER OFFERING A LAMB OR KID

This fragment of sculpture was found, probably at Nippur, during the Fourth Expedition. At least we may so conjecture from a photograph of it preserved among others taken in the field, but there is no number attached to it, and no other record connected with it. It is especially interesting for the conventional treatment of the hair of the animal offered—kid or lamb—by the worshipper. The disposition of the hair in regular zones justifies the interpretation of the woollen kaunakes as material woven in imitation of a fleece. The right shoulder of the worshipper and traces of his right arm holding the lamb are still visible. Arm and shoulder were bare, as shown by the folds of the garment drawn across below the right breast. This is the traditional attitude of the worshipper presenting an offering of an animal and a copy of the same type is found on many terra cottas. The long ears of the animal suggest a kid rather than a lamb.

The long forgotten Sumerian artist will now have his place in our collections. His great antiquity and wonderful achievements will raise a new standard in the history of civilisation, pose a new problem of the origin and transmission of that celestial fire, the "mens diviniore." "En prona mutantur in annos. Prima cadunt . . ." But is not art a perennial fountain of youth?

ESKIMO PICTORIAL ART

BY J. ALDEN MASON

THE Eskimo have always been a subject of the highest interest, not only to the popular mind, but also to the student of American ethnology. No other group of American Indians differs as radically in so many respects from the average of the race. This grouping of the Eskimo with the Indians will no doubt surprise some, which is quite understandable, for many authorities have considered the Eskimo as a separate people. The best anthropologists of today, however, basing their conclusions on more detailed and accurate studies of Indian and Eskimo physical types and peculiarities, class the Eskimo as a sub-type, although the most variant branch, of the American race. In some respects he approaches more closely the general Asiatic type than does the average American Indian, but generally his physical peculiarities are his own, though some of them seem to hark back to earlier and more primitive human types. In material culture, likewise, he seems to be almost unique, having very few points of contact with the neighboring Indian tribes. Some of the Asiatic tribes of the adjacent regions of Siberia do, indeed, show considerable resemblance to the Eskimo in culture, but the consensus of scientific opinion is that these influences have come to them from the American Eskimo, not vice versa. That the Eskimo, thus comparatively isolated, physically and culturally as well as geographically, should so strongly attract both the fancy of the people and the interest of the scientist, is therefore not surprising.

The far-flung habitat of the Eskimo stretches, or originally stretched, over the enormous extent of five thousand miles, from the Strait of Belle-Isle at the northern tip of Newfoundland to the westernmost islands of the Aleutian Archipelago. In the east they have left traces even further south, perhaps to Anticosti Island in the Gulf of St. Lawrence. Groups of them are found on the Siberian mainland just across Bering Strait, others in the Arctic islands north of Canada, and still others in Greenland. One group at Smith Sound in northern Greenland in latitude 78° occupies the northernmost permanent settlement in the world, the village of Etah, inhabitants of which have aided and accompanied most of the Polar explorers, and evidences of their former summer camps have been

noted as far north as latitude 82° , not much more than five hundred miles from the North Pole.

Yet in spite of this extensive range of territory the Eskimo form a remarkably homogeneous group. Many Indians farther to the south, separated by no more than a mountain range, exhibit greater differences in language, physical type and culture than do Eskimo from the opposite limits of their habitat. Minor differences, of course, exist, but throughout this immense area the essential homogeneity of this people in all respects is remarkable. This fact



Eskimo antler box from Point Barrow, Alaska.

appears to involve three deductions, an identity of origin, a relatively late dispersion, and a pronounced conservatism. The last inference is obvious to all travelers in the Eskimo region; the others are not yet proved but are generally accepted.

The Eskimo were the first American natives to come into contact with Europeans, the pagan Norsemen who met them in Greenland about the close of the tenth century; and it is generally believed that the "Skraelings" of the sagas of Eric the Red, Leif Ericsson and Thorfinn Karlsefni who fought with the Vikings in the legendary Helluland, Markland and Vinland, were Eskimo. This name, formerly generally employed in the French form Esquimaux, is supposed to be derived from the term Eskimantsic, which was

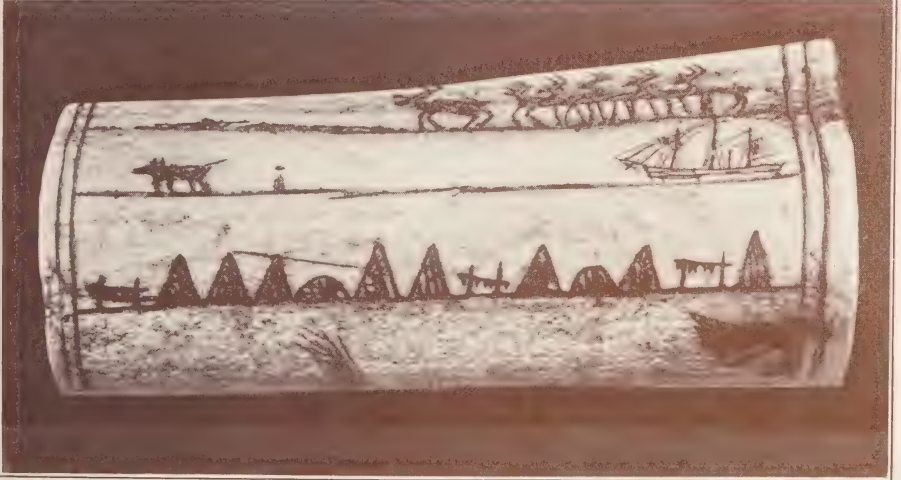
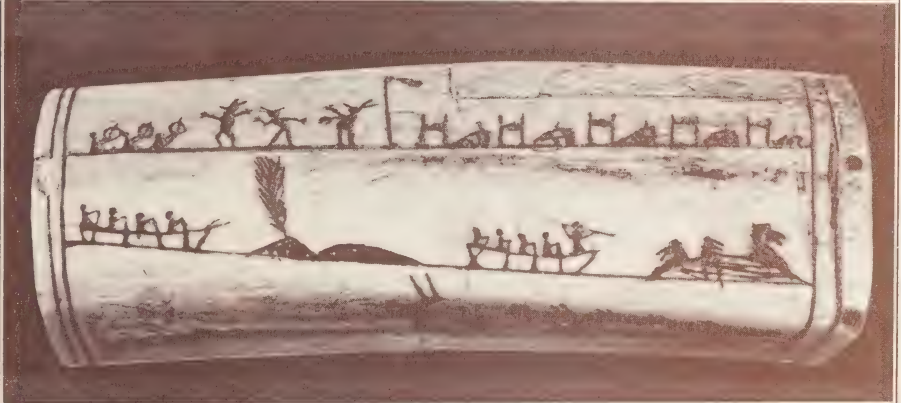
applied to them by the Abnaki Indians, who were then their neighbors. This means "the eaters of raw flesh," and alludes to their practice of eating some kinds of meat, especially whaleskin, uncooked. Their name for themselves is *Inuit*, meaning, as is the case with many Indian tribal names, "people" or "men."

Despite the severity of his environment, the Eskimo leads a relatively comfortable life, far more endurable than that of his immediate neighbors in the woods to the south, the Indians of the Athabaskan and Algonkian groups. These latter are frequently or generally miserable, cold, hungry and possessed of a poor culture, ill adapted to their environment. The Eskimo, on the other hand, has conquered his environment, adapted himself to it and to some extent it to himself, and has produced dozens of special inventions and tools to meet his peculiar requirements. Many of these are for their purpose superior to the products of civilization; and, except in rare cases of failure of food supply, the Eskimo lives a relatively comfortable and happy life.

All northern explorers speak in the highest terms of the Eskimo, their magnificent physical development, intelligence, native inventive ability, sturdiness and independence, good-humor, hospitality and other admirable qualities, and most of them add a prayer that they may long be preserved from the civilization which, led by trader and missionary, is rapidly engulfing them and bringing about their physical and moral degradation while considerably diminishing their numbers. The missionary may undo some of the harm done by white outcasts from civilization, but if the native could be kept entirely from all contact with civilization, so much the better would it be for him.

Probably no people in the world are so maritime in habit as the Eskimo; they are exclusively a littoral people, never venturing more than fifty miles from the sea. The ocean and its inhabitants supply the Eskimo with practically all his necessities of life, even his wood, such as he gets, being generally driftwood cast on the shore.

Art plays an important part in the life of the Eskimo and he takes a craftsman's pride in decorating many or most of his implements, tools and household goods. Wood being scarce, his most available and efficient vehicle for the expression of his artistic urge is ivory, occasionally fossil ivory from the tusks of buried mammoths of prehistoric ages, sometimes the tusks of narwhals, but far more often the clear, creamy ivory supplied by the tusks of the walrus.



Engraved trinket box of caribou antler.

This he carves into many tools and ornaments which he decorates either with carvings in relief or in the round, or by engravings.

Eskimo engravings on ivory are objects worthy of interest for their unusual artistic merit. Primitive art in general is not naturalistic except in its early stages. While it may begin as such, it rapidly becomes conventionalized, stylicized and geometric. and a native, asked to draw a pictorial representation, usually produces a scrawl which would be the despair of any third-grade teacher. In the history of art three primitive "schools" stand out prominently, that of the Magdalenian cavemen of Europe, that of the Bushmen of South Africa and that of the Eskimo. All are noteworthy, considering the limitations of their technique and vehicles for expression, for a feeling for proportion and composition, and especially for the naturalness and liveliness of action portrayed by a very few properly placed strokes.

It was this close resemblance between the arts of the Magdalenian palæolithic cavemen and of the Eskimo more than anything else, although he also noted resemblances in manners and customs, implements and weapons, which led Sir W. Boyd Dawkins, one of the most eminent authorities on "Early Man in Britain," to conclude in his book of that title that the Eskimo represent the remnants of European palæolithic man, driven out of Europe by later invaders. More recent investigators, amassing additional evidence, have not been able to agree with the great British archæologist in this view. They find the Eskimo physical type markedly different from that of the European primitive artists and more similar to the American type, that the implements and weapons are only superficially similar and, to cap the climax, they have decided that Eskimo graphic art, that is to say the pictorial art expressed in engraved ivory, is a phenomenon of late occurrence which probably developed since the first contact of the Eskimo with Russian explorers and settlers little more than a century ago.

The proof of this theory, upsetting Boyd Dawkins's sensational hypothesis, is that such engraving is found only among the Alaskan Eskimo, being quite foreign to the Central, Greenland and Labrador Eskimo, and that excavations in Eskimo sites abandoned before the coming of the Russians produce no examples of pictorial engraving. Even within the area in which engraved ivory objects are found there is great variation, the best work being found immediately to the south of Bering Strait as far as the Alaska Peninsula, including

Bristol Bay, Norton Sound and the territory between the Yukon and the Kuskokwim rivers. Good work is done in Kotzebue Sound just north of Bering Strait, but from here the work deteriorates until it is considerably inferior (according to the principal authority on the topic) at Point Barrow, the northernmost point of Alaska on the Arctic, which is practically the easternmost extension of the industry. These facts point directly to the conclusion that the practice of making pictorial engravings was not native to Eskimo art but is a development of the last century or two, the initial incentive having been supplied by contact with the first Russian colonists. That they were willing and able to adopt a foreign means of expression and to develop and adapt it to their own culture and nature speaks highly for the native ability and character of the Eskimo.

The engravings of the Alaska Eskimo are generally executed on the hard, smooth, creamy ivory obtained from the tusks of the walrus, *Rosmarus obesus*, much less commonly upon the antler of the woodland caribou or American reindeer, *Rangifer tarandus caribou*, and occasionally upon bone. The antler is by nature especially suited for caskets and boxes, such as trinket, tinder or snuff-boxes, but is of a darker and more grainy nature than ivory. Of the latter are made most of the implements of the Eskimo, but naturally only the larger objects with a good deal of relatively flat surface are suitable for the engraving of pictorial figures and scenes. Among these are especially numerous the short bows employed in twirling the drills used both for perforation and in making fire, the handles of bags and buckets, and the tobacco pipes, the last being modelled on the Asiatic type. Smaller objects, less often decorated, are knife-handles, combs, bodkins, needlecases, arrow-straighteners, reels for fishing lines, and similar implements.

In the making of an ivory implement, such as a bowdrill, the tusk is generally sawed or split longitudinally into quarters, cut and carved, ground, smoothed and polished, drilled and etched. Today, tools of iron or steel are employed, though many of these are made by the natives themselves from nondescript pieces of iron, but in earlier days the cutting and carving were done with quartz crystals, the grinding with stone, the smoothing with sand, the polishing with another piece of ivory and the engraving and drilling with bits of flint or chalcedony. The incised lines were then blackened with a substance composed of charcoal made from burnt grass mixed with oil.

The most recent work is apparently blackened with graphite, perhaps from lead-pencils obtained from the traders.

The figures engraved are frequently purely decorative, consisting of repetitions of somewhat conventionalized figures of animals,



Scenes from Eskimo life engraved on antler box.

houses and similar objects, but more often they are scenes from everyday life. These are generally hunting scenes, but often dances, religious observances or other activities are portrayed. In fact an excellent picture of Eskimo life could be obtained merely by the study of the engravings on any large collection of these objects. Probably the decoration was executed purely for æsthetic reasons,

solely from a desire to beautify personal possessions. It has never been suggested that the decorations employed had any magical value or augmented the potency of the implement. The scenes portrayed may sometimes be purely imaginary but more often, probably, they are the record of hunts or other adventures participated in by the owner. "Hunting records" is a name frequently applied to them.

The University Museum possesses a rich collection of Eskimo engraved implements, the best of which are illustrated in the accompanying plates.

Probably the most interesting of these objects are the two boxes of antler, Nos. 42211 and NA-4251, figured on pages 249 and 251. The former is from Point Barrow, Alaska; the latter is without notation of provenience, but it is so similar in every respect that it must hail from the same neighborhood. They were used as receptacles for needles and thread, thimbles, beads and trinkets, and knickknacks of every description.

Specimen 42211 is decorated with eight short scenes engraved on parallel base lines. The first shows a dog-sled approaching a village. The sled is piled with a load of indefinite nature, on which two figures are riding while another pushes from behind. The dog is assisted by a man with a staff. To the right are seen two houses of the semi-subterranean winter type, each with a man on the roof, while beside each house is the scaffold on which food supplies are kept out of the reach of predatory wild animals and dogs.

Below this is a summer scene. The conical objects to the left are temporary summer houses erected at the hunting grounds and beside these is a rack upon which meat and fish are dried for winter consumption. To the right, an umiak or large skin boat is attacking three walrus upon an ice-floe. Of the six occupants, the leader is poised with his harpoon, the steersman is dragging his paddle and the other four are probably paddlers, although paddles are shown in the hands of only two.

The following scene is one of the most interesting of all and apparently portrays a religious dance or shamanistic ceremony. To the left, two figures lean against each other, but whether they are wrestling, dancing or are otherwise engaged is uncertain. Next, three seated figures are beating the large discoidal one-head drums or tambourines which in North America are typical of the Eskimo alone, while three figures are caught in the lifelike postures of a vigorous dance. They are apparently wearing masks which depict

some long-eared animal and one of them wears a tail. At the right are seen two summer houses and a drying rack. The dance portrayed is obviously of the type of the "wood" or "tree" dance of which Murdoch says:¹ "A row of old men beat drums and sang, while the performers chanted a monotonous song. Presently the bottom of the curtain was lifted and out crawled five men on all fours, wearing on their heads the stuffed skins of the heads of different animals—the wolf, bear, fox, lynx and dog."

In the fourth tier, not shown in the illustration, is engraved a hunting scene in which are shown, in succession, a dead seal, a live seal towards which a hunter with a harpoon crawls, while overhead a bird is flying, a loaded sledge, another dead seal, and another sledge with an occupant.

A stirring whaling scene is shown in the next row, two realistic spouting whales being pursued by two umiaks. In the first boat the leader is harpooning the whale while two of the crew paddle and one steers; the second boat has not yet got within striking distance of the whale and the harpoon rests in its crotch in the bow while all the five occupants paddle and steer.

A line of five caribou forms the sixth row.

The seventh is less naturalistic and probably somewhat ideographic and is divided into three sections by curving or meandering vertical lines. At the left margin is apparently a drying rack in vertical position, followed by three summer houses and another drying rack, above which are several flying birds. The meaning of the human figure in horizontal position is doubtful. In the central section are portrayed five swimming caribou pursued by a man in a kayak, the man's small skin hunting boat. He spears one of the caribou. To the right are seen the heads of seven swimming caribou while an eighth has climbed out on shore. The serrated lines probably represent land with vegetation. The purport of the figure of the man who holds in his right hand an object, exactly similar to that of the figure in the left cartouche, must be imagined; they may be urging the caribou towards the hunter in the kayak.

The final scene portrays to the left a caribou wounded by two arrows of the bowman behind it, and to the right six men flensing or cutting up a whale. The flag to the far right is the only foreign object represented in the whole decoration.

¹ John Murdoch: *Ethnological Results of the Point Barrow Expedition; Ninth Annual Report, Bureau of American Ethnology; Washington, 1892.*

Specimen NA-4251 similarly consists of seven parallel scenes, the first two apparently representing whaling activities. To the left appears a shore upon which a boat with three men is drawn up. Further to the left is an object of uncertain nature, composed primarily of two pairs of crossed poles, beside which a man stands; one may hazard a guess that a net is drying there. The object in the center of the scene is likewise of somewhat doubtful character. The same sign resembling a tree is employed by the Eskimo to represent the spouting of the whale, smoke, breath, wind and all similar phenomena. In this case, in view of the cylindrical object at the base tended by a nearby figure, it may be presumed that it represents the smoke of a fire, possibly a fire for trying out whale blubber. The object at the base may therefore be better interpreted as a rock than as a dead whale, especially since another boat with three occupants is being landed upon it. To the far right a whale is shown being harpooned by the leader of the crew of an umiak which has three other occupants, and above, though hardly visible in the illustration, and probably added at a later time and at an angle, is an exceedingly well-drawn picture of a small sloop with mainsail and jib, and with a steersman at the helm. This, together with the hat apparently worn by the central figure, the unusual object to the left and the absence of Eskimo houses on the shore, points to the conclusion that a scene of white whalers is here portrayed.

In the second whaling scene a sled of the high-railed type drawn by two dogs hitched in tandem and accompanied by three men approaches three figures who are apparently standing on a whale cutting it up. To the right is either another whale or a rock on which a flag is flying from a pole. As in the last figure of the preceding specimen, a flying flag appears to be a sign to other hunters that a whale has been caught and is being cut up.

Beneath, a dance almost identical with that shown in the preceding specimen is portrayed. The three drummers and three dancers with their long-eared masks are admirably shown and beside them is a pole or tree with the top broken and bent over. This probably represents the tree referred to by Murdoch from which the dance receives its name "Tree dance," although the dance described by him was held indoors and the tree was represented by two tubular boxes hung from the ceiling. He continues his description: "They swung their heads from side to side in unison, keeping time to the music, uttering a low growl at each swing and shaking their rattle



Engraved ivory snuffbox of Alaskan Eskimo.



Reverse view of snuffbox.

mittens. This they kept up for fifteen or twenty minutes, while the chant still went on, and the chief performer, with excited gestures, embraced the tree and rubbed his nose against it from time to time." To the right of the dancers are seen five pairs of structures, the H-shaped objects being not goal-posts, but scaffolds for holding caches of food, and the lower objects probably being small temporary summer camp houses.

Next follows one of the commonest scenes of Eskimo life, a whale and walrus hunt.

A hunting scene on land and one of unusual artistic merit is next shown. Five caribou led by a big buck with spreading antlers, all of them with heads up in attitudes of surprise and attention, are looking towards a low hummock behind which a hunter with poised rifle is lying prone. The entire effect, attained by the use of the fewest possible strokes, is admirable.

The sixth scene is also an excellent performance, the auxiliary schooner to the right with its three masts, stack, jib, bowsprit and "dolphin-striker" being extremely well executed for a primitive artist. To the left, more carelessly drawn, are seen an animal, possibly a bear, and a man.

Finally we have a view of a row of dwellings and scaffolds for drying meat and fish. The houses, both of the high conical and the low hemispherical types, are the temporary summer shelters and tents which are erected at hunting grounds. Not a living thing is seen in this picture.

Another box of antler, also from Point Barrow, and probably used for sewing materials and personal trinkets, is No. 42587, illustrated on page 254. It has the appearance of considerable age, but the workmanship and decoration are inferior to those of the preceding specimens. The box is of oval cross-section, the decoration is almost entirely on one side, and the reverse shows only two unusually lifelike figures of caribou approaching a man with a gun, the latter poorly drawn and rather untypical both in technique and appearance.

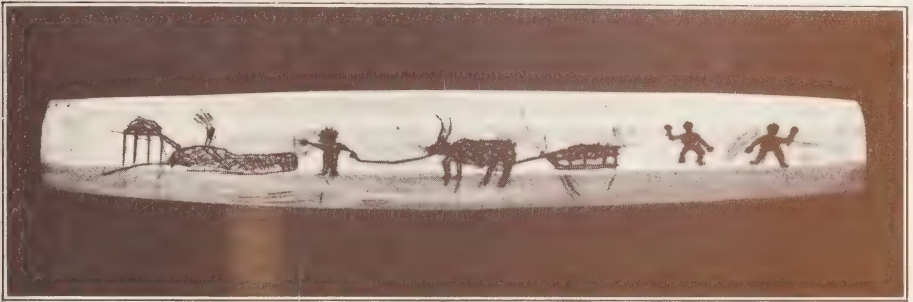
On the opposite side are four parallel scenes, one of the marginal views being inverted. To the left in the first tier are shown three human figures, two of them evidently dancing together in a lively manner. The object held in the right hand of one, which he is apparently withholding from the eager grasp of the other, together with the adjacent building, which is of "civilized" type, may be taken as *prima-facie* evidence both that the manufacture of the

specimen is recent, and that, one may hope, it antedated the passage of the Eighteenth Amendment. Another human figure is seen walking upon the ridge of the house.

To the right, at a slightly different level and unconnected with the foregoing, are engravings of two caribou. The antlers of these are especially well executed, and the animals are particularly well posed.

The next two scenes portray caribou hunts by men with guns. The technique and execution are only fair, but the attitudes of the wounded, startled, and fleeing animals are quite admirable.

The fourth view, in inverted position, depicts a meal. To the left, two figures, probably men, are seated on the ground, one of



Eskimo engraving on ivory needlecase or bead.

them smoking a pipe with a long curving stem of the usual Eskimo form which was adopted, through the Russians, from the Asiatic type. Approaching them is another figure, probably a woman, bearing a bowl and a basket or pail, which doubtless contains food. The next object is difficult to identify, but is identical with one portrayed in the first scene on this specimen and there interpreted as a house on account of the figure of a man standing upon it. Both objects, however, seem to be upheld by four posts and it is quite possible that the artist intended to represent mosquito-bars, the canopies of netting which are stretched over beds. Mosquitos in incredible swarms are the bane and terror of the far north and no white man, trader or explorer, can endure life there without mosquito-bars, one of the few unalloyed benefits which civilization has brought to Greenland's Icy Mountains and India's Coral Strand. Beside this object is seen, cooking over a fire, a kettle supported on a framework. This method of preparing food is of course modern and was unknown to the Eskimo before the days of European con-

tact when they possessed no metal. Murdoch reports that in 1881 metal kettles of various sorts were exclusively used for cooking and were called by the same name as the old soapstone vessels, but in earlier days food was probably cooked by the almost universal American custom of placing hot stones in water. This scene closes at the right with a figure apparently engaged in cutting up a seal. The number of objects foreign to native Eskimo culture, such as firearms, kettles and mosquito-bars, is evidence of the relatively late origin of this specimen and contrasts strongly with the absence of them in specimen 42211 and the others to be described later.

A small box presumed to have been employed as a snuffbox, NA-9192, is shown on pages 258 and 259. Its provenience is unknown. The material is polished walrus ivory, the engraving composed for the greater part of fine black lines. The daintiness of this engraving suggests its relatively late origin, since it is doubtful if such delicate work could have been done with other than a fine steel point. Other evidence pointing to the same conclusion is seen in the principal figure, that of a man riding on the back of a reindeer. The Old World reindeer and the American caribou are of closely related species, but the latter were never domesticated by the Eskimo, who were ignorant of the benefits to be gained by their domestication. Several efforts to introduce the industry resulted in failure. This was due to the opposition of the extremely conservative natives. At last the government succeeded, between 1892 and 1902, in inducing the Alaska Eskimo to breed, train, use and slaughter reindeer introduced from Asia. As a result, in 1924, seventy per cent of the 350,000 reindeer in Alaska were owned by Eskimo and the exportation of reindeer meat to the Pacific Coast of the United States and Canada became an important industry.

The figures on this engraved specimen appear to be without any intentional grouping or coherent arrangement, consisting mainly of animals, not especially well drawn, among which may be identified the caribou, seal, fish, bear, wolf, porcupine, walrus and a bird. Several human figures are portrayed, one of them, as already noted, mounted on a reindeer or caribou. Three of them are apparently concerned in a fight. Boxing, or serious fighting with the fists, is as foreign to the Eskimo as it is to all non-Anglo-American peoples, but may have been adopted in recent years by the younger generation. That seems to be the obvious interpretation of the group. The figure to the right is posed in a decidedly pugilistic position

while the central one executes a flop which might grace today's newspaper comic strip. The individual to the left may be registering joy or consternation at the outcome of the encounter. The vertical line with a ball at its lower end which hangs just above the central figure is of doubtful import, as is the row of trifurcating inverted tree-like objects at the top. The latter may be purely decorative.

A specimen somewhat similar in art and technique, No. NA-4384, is reproduced on page 261. It is from Wainwright, Alaska, a settlement on the Arctic coast a short distance, as distances are reckoned in Alaska, southwest of Point Barrow. It is catalogued as a needlecase, but if it is one it has lost the thick leather thong which fills the central bore of a needlecase and into which the needles are stuck. In effect it is a long, slightly tapering, octagonal ivory bead. Only one of the eight facets is decorated, this with a scene engraved with fine hair-lines much like the preceding object. In this specimen also, both the fineness of the lines and the concepts indicate a late period of manufacture. Beside a winter house with a food scaffold stands a man leading a reindeer which is drawing a sledge, the driver pointing towards the house and evidently urging on the beast. Such a scene would have been impossible in Alaska more than thirty years ago. To the right are two human figures, admirably done as regards bodily proportions and pose, which resemble strikingly the human figures in the previous specimen. The impression given by them, however, is that of ball players rather than of boxers.

On page 264 are shown two views of a specimen, NA-6631, from Point Barrow, with figures and scenes engraved in unusually fine lines. Though catalogued merely as a "hunting record" it is obviously an implement for some purpose, but the published works upon the Eskimo of this region mention no object of this type. It is of smooth, creamy ivory and measures fourteen inches in length. Somewhat bow-shaped, one side is convex from end to end and slightly convex from side to side, while the other side is markedly convex from side to side and concave from end to end. In the center is a drilled hole. Although the general effect is one of relatively recent manufacture, the scenes portrayed are purely Eskimo and only one of them implies civilized influence, in the employment of a firearm.

The concave side may be considered as portraying six different scenes by land and sea and on the ice. In one of these a hunter with bow and arrow pursues a caribou into which he has already



Hunting scenes engraved on Alaskan Eskimo ivory implements.

shot two arrows, while below a reclining hunter edges himself slowly and cautiously towards a seal. The figures are unusually lifelike. The circle beneath the head of the seal doubtless represents one of the breathing holes which seals maintain in the ice and around which they bask and are awaited by the hunters. The other scenes, including a whale-flensing, present no features that have not already been described.

The convex side is divided into two halves, right and left, in each of which are portrayed several hunting scenes, without apparent coherence and yet without separation. The greater part of the left half is occupied by a lively scene in which a hunter has cast his harpoon into a large seal beyond which another barks menacingly. On the lower margin stands a ferocious chimera, resembling a bear, but having ten legs. Eskimo art occasionally follows that of the Egyptians in economizing labor and space by portraying a line of animals in close conjunction and omitting some of the unessential features, but in such cases the proper number of heads is always shown. Obviously, ten legs can not be properly apportioned among any number of normal quadrupeds; either the artist erred or intended to represent a mythical monster. Such supernatural beasts, occasionally characterized by a superfluity of limbs, are known in Eskimo mythology, but none of the type of the present animal has been recorded. The oval eye of the beast, a feature noted on no other of the present specimens, augments the unnatural appearance of the monster.

The action of a whaling scene at the right is noteworthy. The bowman, having cast one harpoon, is in the act of plunging another. Behind him may be seen the inflated sealskins which are attached to the lines as floats to indicate the position of the whale after the attack. The man amidships appears to be shooting at the leviathan with a gun while in the stern the steersman keeps the bow hard against the quarry.

The art of this specimen is unusually good, the composition being well conceived and the bodily proportions, postures and actions very well portrayed.

The other specimen shown on this page, No. 41762, also from Point Barrow, is a bag-handle of walrus ivory, somewhat like the preceding specimen in shape, but narrower, thicker and with twin holes at either end. Moreover, the decorations, on both sides, are filled with a brick-red substance in place of the usual black. On the



Whaling and walrus-hunting scenes engraved on convex face of old Eskimo bowdrill.

convex side they are mainly geometric, consisting of lines and dots, so placed that the resemblance to a row of dominoes strongly indicates that these served as the model.

The concave side is probably a hunting record of the owner and maker, and is divided into six sections. To the far left a hunter in his kayak, with paddle and harpoon, approaches four caribou, led by a large buck. If the usual symbolism holds good in this case, the fact that the animals are facing him indicates that they were secured; in hunting scenes animals facing away from the hunter are those which escaped—if one may believe the reports of ethnologists on this subject. In the second section a large fish is pursued by a boat in the bow of which stands a large figure with poised harpoon, the four paddlers and the steersman being represented merely by short vertical lines. Next follows a small section in which is seen a human figure with a dog dragging a seal. Above, a bowman shoots at a bear from behind.

In the fourth section are shown four animal skins, probably those of seals, beside which stands a human figure, probably the owner of the specimen with a tally of his hunt. To the right is seen a hunter stalking a bear by crawling along the ground, and in the last division two caribou are pursued by a bowman. The art and the technique of this specimen are, on the whole, distinctly inferior to those of the preceding specimens.

Ivory bows of bowdrills form the principal vehicle for Eskimo engraving. Five of the best bows in the possession of the University Museum are shown on the following pages. The bowdrill is one of the peculiar labor-saving devices known to the Eskimo but to no other group of American Indians. In pre-Columbian days, apparently, even the relatively high civilizations of Mexico and Peru knew no more efficient way of drilling than by twirling a drill between the hands. However, much as we should like to credit the ingenious Eskimo with the invention of this apparatus, since it was known for ages in Asia it is most probable that the use of the bowdrill spread from there, though presumably in pre-Columbian days. The Eskimo employ the bowdrill alike for drilling holes in ivory, stone and wood and for making fire, drills of different types, of course, being employed. The drill has a wooden shaft around which the cord of the bow is looped, the upper end of the shaft fitting into a socket in a mouthpiece which is held between the teeth. One hand is therefore free to hold the object to be drilled, the other to draw the bow from



Concave face of old Alaskan Eskimo bowdrill of walrus ivory.

side to side with a sawing movement, thus imparting a reciprocal twirling motion to the drill.

The illustrations on pages 266, 268, 270 and 272 show the four sides of the oldest and best bow in the collection, No. NA-9387. The provenience is unknown, but it is said to have been collected in 1816, very early in the history of white (Russian) contact with the Eskimo. It is completely covered with engravings, the four sides showing six different panoramas.

The principal or convex side has two complete scenes, one against either edge. The better one is a whaling scene. The squares on the two summer houses or tents may represent pieces of hide used for the covering. Figures in varied postures near the houses include one man holding several long staffs, possibly harpoons.

The rest of the panorama is illustrative of a whaling scene, in which eight umiaks, each with a crew of four men, are pursuing nine whales. Such a scene is, of course, quite imaginary; seldom is more than one whale sighted at a time and the capture of one is a joyful occasion.

Here we may pause a few moments to consider the practice of whaling among the Eskimo. The whale, while naturally inoffensive, is, because of his immense size, a formidable opponent for hunters with primitive equipment. Both on this account and because of the great value to the native of the whalebone, oil, blubber, meat and bones, whaling naturally became the most respected occupation among the Eskimo. Leaders of whaling parties are or become men of authority and respect and the occupation itself is surrounded with restrictions, tabus and ritual observances. All equipment must be scrupulously clean, for the whale "abominates slovenly ways," no hammering may be done in the village and no woman may sew while the whaling party is out, and both before departure and immediately upon return, certain ceremonies must be observed.

The whale principally sought is the "bowhead" or right whale, *Balaena mysticetus*, which normally attains a length of some fifty feet. This is the whale from which whalebone is secured as well as considerable quantities of whaleoil. The smaller beluga or white whale is less often pursued. Whaling is carried on from the umiak, the large open boat. Throughout the Eskimo area two boats are used, the kayak, a small covered boat used by a single hunter, always a man, and the umiak, a large open boat; both are made of sealskin or walrus-hide over a wooden framework. Among the Greenland



Side of old bowdrill engraved with scenes of whaling and walrus hunting.

Eskimo the umiak is exclusively a women's boat and is rowed only by women, while in Alaska it is used by parties of men on hunting expeditions and, when thus employed, women are taken only when there is a dearth of men. On such occasions the women row with oars while the men paddle. On whaling expeditions, however, women are never taken and oars never used, at least among the Eskimo of Point Barrow.

The owner of the umiak and captain of the crew sits in the stern and steers with a large paddle while the rest of the crew, about eight in number, paddle. Today, some of these may carry rifles or even modern whale-guns shooting explosive lances, but the principal reliance today, as formerly the sole reliance, is on the harpooner who is stationed in the prow. Until the whale is neared the great harpoon rests in an ivory crotch in the bow, but as the umiak draws near the leviathan, the harpooner rises and plunges, not throws, the weapon into the beast. The detachable head with line fastened to it remains in the body of the whale, two inflated floats of sealskin being tied to the line so that the escape of the animal may be impeded and his position followed during his diving or "sounding" after the stroke. When he rises again another harpoon head which has been fitted to the shaft is plunged into him, as well as other lances, and when at last he succumbs he is towed ashore, "flensed" or skinned and cut up. The crew share the whalebone according to an agreed arrangement, but all within reach apparently are entitled to as much of the meat and blubber as they can secure.

The whaling panorama engraved on this side of the bowdrill shows most of these features, the umiaks, the steersmen, the paddlers—generally reduced to two in number—the harpooners with their weapons, the lines and floats and the whales, the breathing or "blowing" of the latter being generally depicted by a treelike symbol extending from the head. The differences are only minor. The three whale tails to the right probably form a record of the whales secured. The accepted symbolism that animals drawn facing away from the hunter represent those which escaped probably does not hold in the case of whales, all of these being attacked from behind, probably the universal method. At the far right a flight of seabirds is depicted.

On the opposite edge of this side of the bow a walrus hunt is portrayed. Here both umiaks with groups of men and kayaks with single hunters are shown, three of each, the kayaks attacking solitary



A visit of a whaling ship depicted by an Eskimo on his bowdrill.

animals, the umiaks those in groups. This feature may afford some clue as to the provenience of this bow, since Murdoch states that at Point Barrow he never saw the kayak used for walrus hunting, while Nelson, speaking of the Eskimo near the mouth of the Kuskokwim, mentions only the kayak in this connection. The walrus, *Rosmarus obesus*, whale, seal and caribou provide the Eskimo with practically all his necessities of life, the walrus producing tough hide, ivory and meat. He is hunted with a harpoon with detachable head which is thrown from boat or shore, a long line with an inflated float of sealskin being attached to the head. This float retards the flight of the animal and reveals his position, while the shaft is easily recovered. Today, of course, firearms are largely used, but have probably not yet entirely supplanted the harpoon, even with the most civilized Eskimo.

The engraved scene shows, in lively action, most of the above-described features of walrus hunting, the confused, startled and fleeing animals, the harpoons with their coiled lines, the harpooners, frequently two in one umiak, and, in the case of the kayaks, the harpoon resting across the bow and the float behind the seat. It is not shown whether the occupants of the kayaks are using single or double-bladed paddles, both types being employed by the Eskimo.

On the concave side of the bow the engravings are somewhat confused and to some extent undecipherable because of the erosion caused by the now missing bowstring. They include another typical whaling scene in which five men in an umiak are harpooning a basking whale. In the center is a group probably representing a hunting scene on land. It may be presumed that the central figures in each of the two symmetrically balanced groups represent animals and the taller objects blinds behind which the hunters are hiding. But an interpretation of the scene as a battle is possible.

In the next scene, rival umiaks, one with four and the other with five occupants, are simultaneously harpooning a basking whale. The action shown with a minimum of strokes is most lifelike and praiseworthy. Finally, at the far right margin, two human figures, the first with arms folded and the other with arms upraised in a gesture for attracting attention, are separated by a large object of uncertain nature characterized by many parallel vertical lines. What object or concept known to the Eskimo this may represent is problematical; it may be entirely symbolical.



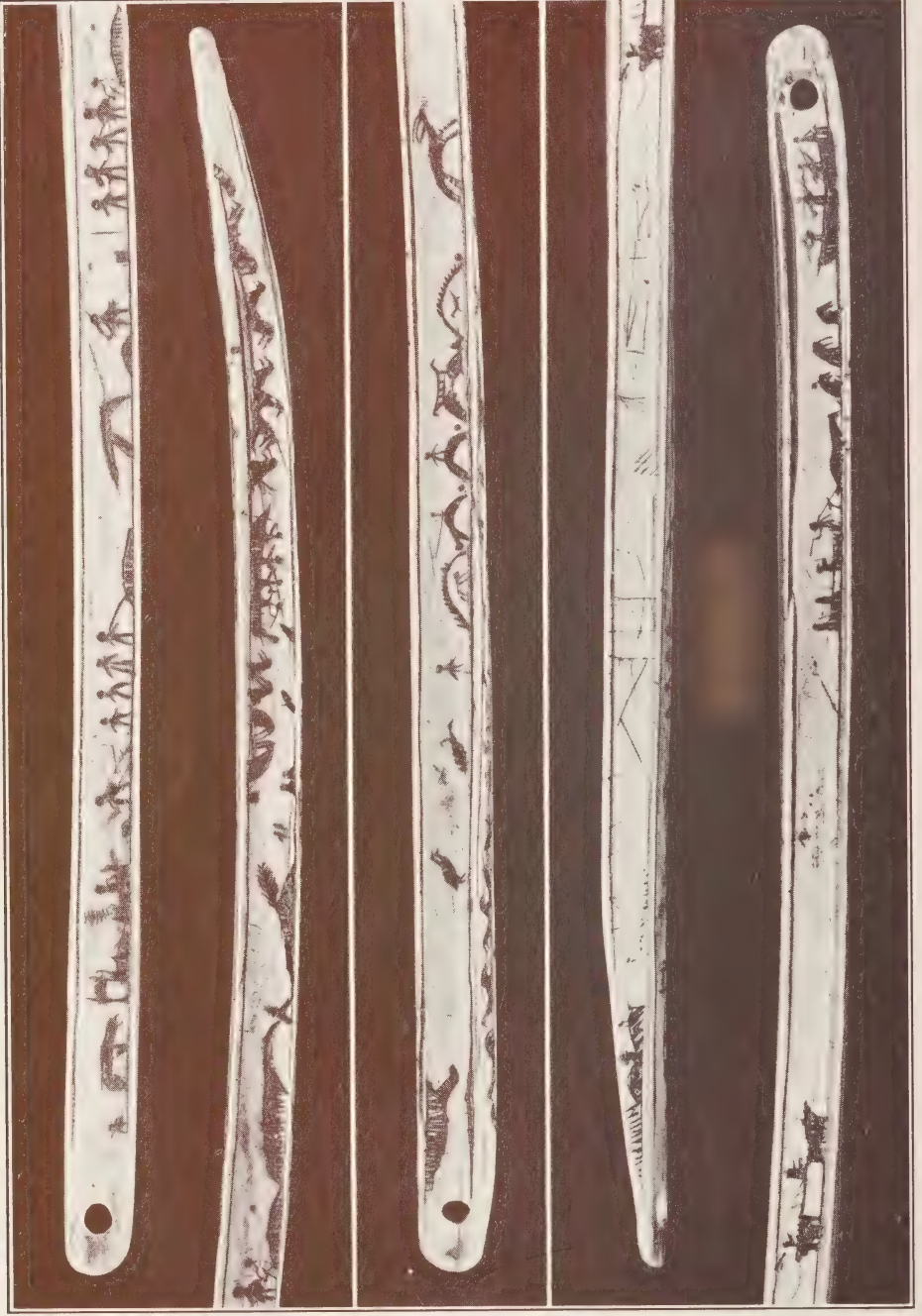
Hunting scenes and hunting record engraved on Alaskan Eskimo bowdrill.

One of the two sides portrays on one edge typical lively whaling scenes, showing eight umiaks with from four to five occupants, four whales and a walrus. The attitudes of the paddles, steersmen and harpooners are most lively and naturalistic, although executed with the greatest economy of strokes and effort. The section of the panorama furthest to the left is eroded to the point of illegibility by the wear of the bowstring.

The opposite edge of this side bears a few figures of interest depicting the hunting of sea mammals. To the far left is a seated figure holding a long object up to his face. The resemblance is closest to a telescope, but it is very unlikely that the Eskimo knew of or possessed telescopes at the time of the manufacture of this bow. The interpretation of a pipe is objectionable inasmuch as Eskimo pipes are characterized by curving stems. The conical or pyramidal object before him may represent a hunting blind. Further to the right is seen a human figure dragging a walrus and further still are two whales and a carelessly engraved object of ill-defined nature.

The most interesting of the six scenes on this bow is found on the opposite side, the action being full of life. To the left is apparently portrayed the excitement of a group of Eskimo in their shore village upon the visit of a sailing ship, presumably one of the earliest whalers. The whaling industry was introduced into the Bering Sea in 1848 and the first whaler visited Point Barrow in 1854. The inhabitants of the latter place are said never to have seen a white man until 1826, but the Eskimo to the south of Bering Strait came into contact with civilization nearly a century earlier, the first explorations having been by Captain Vitus Bering and Chirikov in 1741. Traders and trappers followed close in their wake, the first permanent settlement having been made in 1784. The native culture of the Eskimo of the Pacific Coast has therefore been much more affected by civilization than that of the natives of the Arctic Coast.

On the shore, beside four objects of sugar-loaf shape, the summer tents of the natives, are drawn twenty human figures in attitudes expressive of a boisterous welcome to the whalers which is obviously sincere, though whether in expectation of or as a result of a gift of "grog" is uncertain. Most of the figures are apparently dancing, their arms upraised in various attitudes. Some hold objects in their hands which may be guessed at as drums, shields and spears. The action, the proportions of the figures, the composition, are all admirable and surprising in primitive art and reveal a keen observation



Three sides of Alaskan bowdrill decorated with engraved views of Eskimo life.

and conception of the human form in action. Many of them bear a strong resemblance to old Egyptian reliefs.

The whaling vessel is shown in the left center, an old-fashioned three-master with long bowsprit and martingale or "dolphin-striker," riding high. A cable holds it to the shore. On board, ten human figures represent the crew, and three other figures are depicted in the ship's boat which is fastened to the stern by its painter. The larger of these, wearing a hat, doubtless represents one of the ship's officers. Each of the other two, probably sailors, is holding up a hand, probably in salute, a gesture which would certainly have attracted the attention of the observant Eskimo.

Another whaling panorama occupies the remainder of this side of the specimen, depicting five umiaks, each with four or five occupants, attacking four whales. The blowings of the leviathans, the exertions of the paddlers and the efforts of the harpooners are all well portrayed.

Two more bowdrills are shown on pages 274 and 276. The larger of these, NA-1517, from the Kuskokwim River, Alaska, is decorated on both convex and concave sides, but only the latter is shown, the engravings on the convex side being of slight importance.

To the left a lively walrus hunt is portrayed, ten walruses, an umiak with six men and a kayak with one occupant composing the scene. The drawing of the animals is especially good. In the center are five whale tails, probably the owner's hunting record, and to the right seven animals, one shown by his head alone. The three in the rear have long tails and necks, and those in front shorter necks and diminutive tails. The former most probably represent wolves, the latter caribou.

On the opposite edge are seen engravings at either side, but these are vague, somewhat worn down and probably unfinished. Human figures, whales and boats may be distinguished, one of the whales bearing a row of spines of undetermined nature on his back.

The other bowdrill on page 276, NA-455, from Cape Prince of Wales, is small and made with four relatively flat sides of equal width. One of these is almost plain, but the other three are well decorated and are all illustrated here, comprising a total of eight scenes.

The more concave side portrays three scenes, small and widely separated—an Eskimo winter house, an umiak with two occupants, and a walrus hunt.



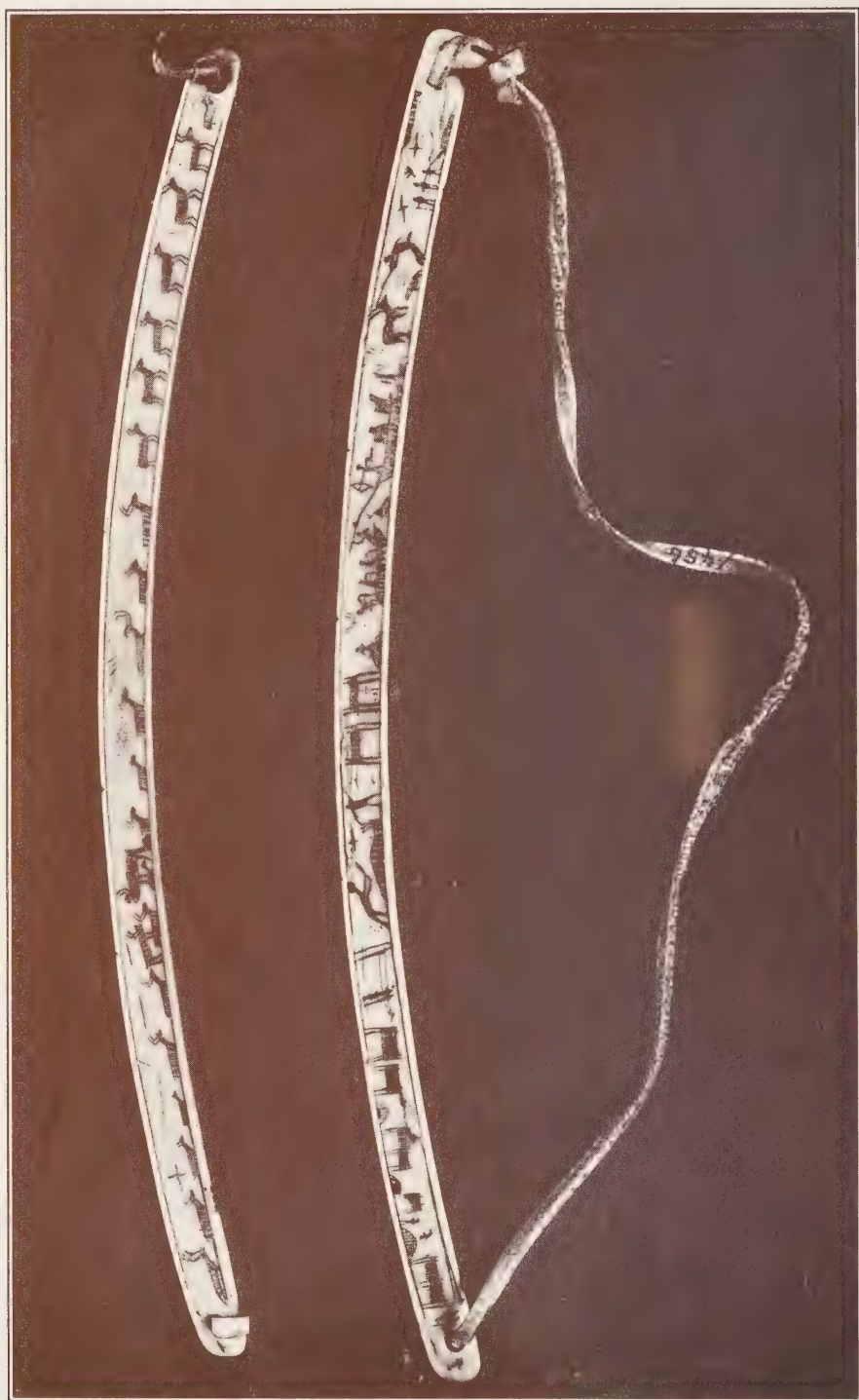
Engraved bowdrill from Cape Prince of Wales, Alaska.

On the opposite more convex side of the bow is a scene radically different from any others and difficult to explain without the help of a native familiar with Eskimo symbolism, mythology and religion. For it is most probable that some esoteric ceremony or myth is here depicted. To the left are seen two single figures which the writer can interpret as nothing other than large two-headed birds. A human figure follows. The greater part of the scene is occupied by five hemispherical or semicircular objects which most probably represent houses, apparently of two types. Those on the two flanks are slightly larger and bear a row or covering of spines on the exterior and figures of animals on their faces which may represent either actual animals within the houses or figures painted on the side. The three central houses are slightly smaller and differently executed. On the roof of the central dwelling stands a human figure, that to the right bears an umiak or a sledge on its top and that to the left an object of unidentified nature. To the right of each house a dot has been incised. The scene terminates with the figure of an animal resembling a goat, but since the mountain goat appears to be unknown to the Eskimo some other animal must have been intended.

On the opposite edge of this side a solitary figure of a seal is seen.

One of the relatively flat sides of this bow is well decorated, the greater part of it being occupied by two continuous scenes separated by a medial line. To the left is a land scene showing a small human figure and a bear, both decidedly out of proportion, a food cache scaffold, a winter house with smoke arising and a man on the roof, a human figure approaching the house, four men dragging a walrus or other sea mammal, a large animal, probably a bear, and another man. The second section of this scene is maritime and portrays a group of four men dragging a sea mammal by means of a line. A large seal and a spouting whale are escaping, and beyond them may be descried four objects, probably inflated sealskin floats, in the water.

Against the other edge on this side, in inverted position, is shown a most lively scene of walrus hunting. This is unusually well executed, the delineation of the consternation of the surprised animals being most realistic. Like most Eskimo engravings, these scenes were probably records of hunts and adventures in which the owner participated, rather than purely decorative motives.



Herd of caribou and other scenes engraved on bowdrill from Nunivak Island, Alaska.

The last two bowdrills are those shown on pages 278 and 280, both of them with two principal faces, each well decorated with scenes familiar from the other engravings. The larger one, NA-461, from Cape Prince of Wales, the westernmost point of the American mainland, is considerably worn from use and many of the figures are indistinct. The lively action of men and animals in a walrus hunting scene on the convex side is well represented, the use of the throwing harpoons by the pair of men in the bow being especially good. The difference in the method of hunting the whale and walrus is accurately portrayed here, the man in the bow in the whaling scene being shown thrusting, instead of casting, the great harpoon, while the other occupants hold the sealskin floats ready to throw them overboard.

On the other edge of this side are three disconnected figures, an umiak with two men to the left, another umiak with five men in the center and a figure of a whale far to the right. The occupants of the central boat are endeavoring to attract attention by waving their arms and holding aloft some object, the cause of the excitement probably being the small object to the right, presumably a float indicating the position of a whale which has been harpooned.

The figures on the opposite, concave, side of this bow are confused and evidently drawn without definite plan or connection. Three main groups are seen, those at the two sides being based on one edge, that in the center on the opposite one. The three objects to the left comprise two quadrupeds and a figure on which anyone may place his own interpretation. The former are probably caribou, but the delineation is of the poorest. To the right are, besides several familiar objects, the pelt of an animal, probably a bear, and some markings of uncertain nature. Reversing the bow, on the other edge are drawn, from left to right, the tail of a whale, a man shooting with bow and arrow from behind a blind at a caribou and, to the right, three animals of which the first is probably a wolf, the second possesses some supernumerary appendages, while the third bears some resemblance to a Peruvian llama but none to any boreal animal within the ken of the writer.

Specimen NA-456, the last, comes from Nunivak Island, a small island off the west coast of Alaska between the mouths of the Yukon and the Kuskokwim. Its shape is somewhat different from that of any of the others, the thin edges being curved, the broad faces on which the engraving is done, flat. Three panoramas are incised on these two faces.

On one side is shown a line of caribou, twenty-three in all. The primitive artist has here had good opportunity to demonstrate his knowledge of animal anatomy and has depicted bucks, does and fawns by variations in size and details of horns. Two bucks seem to be about to fight and one of the reclining animals has its head turned and is looking backwards, an unusual attitude for the primitive artist to depict.

Upon the opposite face are portrayed two scenes, the larger one based on the concave edge, the smaller one inverted on the convex edge. Both are naturalistic but of rather rude execution. To the left, two human figures are working over a prostrate object; it may be hazarded that they are flensing a whale. Two food scaffolds are next seen with a human figure under one, then a low mound which may be a house with a human figure standing on the top. Two umiaks are next portrayed, apparently in mortal conflict, although the unidentified object between them may be the bone of contention and cause of the rivalry. The figure to the left, however, is hurling his lance with the help of a throwing stick, while the man in the prow of the boat to the right twangs his bow. Since the arrow is never used for hunting sea mammals and was the main weapon in war, it may be presumed that the scene represents a combat. Like most American Indian tribes in the days before they were put under governmental supervision, every group was in frequent, if not constant warfare with every neighboring group. In the case of the Eskimo this obtained not only between the Eskimo and the various Indian tribes of the hinterland, but also between the various groups of Eskimo. But, as general among the Indians, wars, though constant, were attended by few casualties. Open attack was seldom attempted; ambushes of a few women or a lone hunter and stealthy nocturnal attempts on camps with a few deaths, wounds or captures were the usual methods of warfare. Such a scene of Homeric heroism as that depicted on the bow, open duelling between two bowmen in boats, would not be a common incident in Eskimo warfare and possibly occurred only in the imagination or day-dreams of the maker.

In the next scene of this panorama a man appears to be holding, with great effort and exertion, a jumping deer by a line attached to his horns. Between them is an animal, probably a dog. Unless the bow is of recent manufacture and represents a domesticated reindeer, it is difficult of explanation since no method of capturing

caribou by means of lariats or lassoes is mentioned by any authority. This group ends with the depiction of three men dragging a seal.

At the other end of this side of the bow, inverted and based upon the opposite edge, is engraved a quiet village scene composed of three small hemispherical houses and seven large rectangular food storage scaffolds. Two lonely human figures are seen, one upon one of the houses, the other beside it.

Those who may be interested in delving more deeply and thoroughly into the subject of Eskimo art should consult especially "The Graphic Art of the Eskimo," by Dr. Walter James Hoffman in the Report of the United States National Museum for 1895, pages 739-968 with eighty-two plates. The general literature on the Eskimo is voluminous; every Arctic explorer has contributed to it and scattered and desultory descriptions of Eskimo life may be found in every work on polar travel. But the most complete and reliable accounts of Eskimo life written in a non-technical manner are probably to be found in the works of Knud Rasmussen. For more detailed and technical studies, Turner's account of the Labrador Eskimo, Boas's of the Central Eskimo, Murdoch's of the Eskimo of Point Barrow and Nelson's of the Eskimo of Bering Strait, all of them in the "Annual Reports of the Bureau of American Ethnology," Smithsonian Institution, are the classical authorities.

A CHINESE BUDDHISTIC STATUE IN DRY LACQUER

BY HELEN E. FERNALD

ONE of the most striking objects in the Chinese collections of the Museum is the strange statue of a Buddha, or a disciple of Buddha, executed in what is known as "dry lacquer." The material of which it is made is unusual enough in itself to arouse interest, but the pose and expression of this seated figure also are so unique and extraordinary that it attracts considerable attention.

The Buddha, or Disciple, is seated with the left knee drawn up opposite the chest and the other leg bent horizontally before him with the sole of the foot lying upwards. The hands are placed one over the other upon the raised knee and the chin rests on the hands in an attitude of deep meditation. Such amazing use of strong opposition in the line composition is startling enough, the line of the raised leg being practically at right angles with those of the arms and the other leg; but the head is undeniably the focus of interest, both because of its being at the apex of the pyramidally composed figure and because of the mysterious smile of amused self-satisfaction that plays over the features. In spite of the attitude this is no being of deep spirituality lost in profound thought and oblivious to the world around him. Although his eyes are nearly closed he is perfectly conscious of being the center of attention and is pleased to be considered an enigma. The curve of the heavy eyelids is as expressive of amusement as is the curve of the lips. The large broad head with its long narrow loop-lobed ears is thrust well forward in order to rest the chin upon the hands and this gives the rounded shoulders just the suggestion of a shrug. Altogether it is an unforgettable figure; not for grace and beauty, for it has little of either, but for the daring strength of its composition and the mysterious power of its expression.

The figure is clad in a heavy mantle which leaves the right arm and chest bare and falls in thick unwieldy folds which spread out over the flat base upon which the statue rests. The whole of the figure is gilded except for the hair, which is represented as black. It is parted in the middle and drawn back on each side in a thick smooth curving wad to the top of the ear. On the cranium rises the *ushnisha*

in the form of a large low hump with a small round lump perched on top of it, while another lump, not so small, appears in front of it. This front hump is not black like the rest to show that the hair grows up over it but is gilded as if to represent some ornament or perhaps the bare skull. A wide shallow round hole in the forehead



A Chinese Buddhistic figure in dry lacquer.
Height: 3 feet, 8 inches.

is the *urna*, another of the marks of wisdom and holiness of the Buddha. It doubtless originally held a jewel or crystal.

The statue is life size, measuring three feet eight inches in height, and was acquired by the Museum in 1923. It is exceedingly important as an example of Chinese dry lacquer sculpture, for although

many Japanese figures in this technique are known, few Chinese ones, even of the later periods, have come to light.

It is known from literary sources that the technique of dry lacquer was developed in China long before it was introduced into Japan. The researches of Prof. Pelliot have revealed historical records showing that dry lacquer statues were made in the fourth century A.D. by a sculptor named Tai K'uei who worked for the Court, in and near Nanking. He died in 395 A.D. According to Mr. Ashton, Tai K'uei made five processional images for the Chao-yin ssü temple and these were later removed to Nanking, where they were kept in the Wa Kuan ssü temple with the famous jade Buddha, sent by the King of Ceylon in 404 A.D. to the Southern Court, and Ku K'ai-chih's painting of Vimalakirti. Records of the Wei, T'ang, and Sung periods also mention statues in this technique, which was termed *chia ch'u*, or, in the later records, *t'uan huan*. It would seem that dry lacquer was much in favor in the early T'ang period, during which time it was introduced into Japan. There, by the middle of the eighth century, it had become exceedingly popular and had developed into a very high art. Indeed, *Kanshitsu*, as the Japanese called this process, lent itself better than wood or stone to the rendering of pictorial effects through the softness of contours and the flowing grace of draperies. Some of the finest Japanese sculptures known are in this medium. After about one hundred years, however, lacquered wooden figures came into fashion in Japan and *Kanshitsu* was neglected and finally forgotten. In China the technique suffered eclipse about the same time, that is during the ninth century, but there was a revival of it in the Yüan Period (1280-1368 A.D.). Here again the records mention some names. At the court of Kublai Khan was a Nepalese youth, already famous at seventeen, named A-ni-ko, who made religious images and had many pupils, one of whom, Liu Yüan, became well known as a sculptor in dry lacquer and "made many statues for the temples in Shang-tu and Peking."

In spite of the fact that dry lacquer sculpture was so popular for a time in China that there must have been a great deal of it, and although it was of very durable material, there seem to be few actual examples now known. Japanese temples contain many fine Japanese works in *Kanshitsu* but most of the Chinese figures appear to have perished, probably through the frequent fires which destroyed the temples themselves; and what we know of this class of sculpture has so far had to be gleaned mainly from literary sources and from a

study of the related Japanese examples. There are a few Chinese works known to be in existence, however. None of them is dated. Professor Sirén lists four which he says are the only ones, so far as he knows, "which on stylistic grounds may be ascribed to the T'ang period." They are said to have come from Chihli province, from a temple called Ta Fo Ssü near Paoting Fu. One is now in the Metropolitan Museum; another is in the Walters Collection, Baltimore; a third, of which only the head and shoulders remain, belongs to Yamanaka, New York; and the present whereabouts of the fourth is not mentioned. These examples are of Buddhas seated cross-legged in conventional attitude. They are simple, almost severe in modelling, of great restraint and dignity of pose and aloofness of expression. The softness of surface contour and the crisp but sensuously graceful lines of the drapery place these figures by the side of the lovely Japanese examples of the eighth century. A fifth statue which is considered by some to be a Chinese work of the T'ang period is the seated portrait figure called Yuima-Koji (Vimalakirti), which has been one of the treasures of the Hokkeji nunnery, near Nara, for many years. Records of Todaiji, the companion monastery, seem to indicate that this dry lacquer figure was presented in 747 A.D. by the Empress Komyo Kogo. The style bears out this date. Several other *Kanshitsu* statues in Japan may be practically Chinese, such as the beautiful Rotchana Buddha of Toshodaiji, Nara, which tradition ascribes to a Chinese monk who came to Japan in 754 with the master Kuan-shin, bringing some of the latest developments in the process. Thus this Buddha is supposed to have been made over a core of woven basket work. I do not know if it has been examined to determine whether this be true. In the Ostasiatische Museum, Cöln, is a statue in dry lacquer of Myroku Bosatsu thought to have come from Korea and to be very early.

Several later Chinese statues in dry lacquer have recently become known. Dr. Sirén mentions three which he ascribes to the Yüan period, the time of the revival of the technique; one of a standing Bodhisattva which was exhibited at the Cernuschi Exhibition of 1924, a second of the same group but seated, and a third, also seated, which was in the possession of Yamanaka, New York, and has now passed into a private collection. A fourth example is this Buddha in the University Museum.

We have referred to the dry lacquer process as if it were a technique well known. Actually it is rather obscure, although the

main points are clear enough. In the T'ang and pre-T'ang periods clay statues were very common. The method of dry lacquer grew out of an attempt to find a material that could be modelled easily, like clay, but which would be more durable, would not break so readily. At first, apparently, some vegetable fibre was mixed with the clay to strengthen it. The next step was to cover the clay statue with a coat of lacquer or with cloths dipped in lacquer. Then it was found that details could be freely modelled on the surface with a rough paste made of wet lacquer mixed with lint, vegetable fibre, or even sand. Three main variations of the process were evolved. The simplest was that of covering a roughly carved wooden figure with a coating of coarse paint on which was laid a layer of cloth. Several coats of carefully prepared lacquer were then applied and the thick paste described above could be used to mould folds of drapery and other such details and, furthermore, when dry could be carved like so much wood. The figure in the Walters Collection seems to have been made in this way. But such a statue would still be heavy. The more perfectly developed process is suggested by the term which was commonly applied to it, *chia ch'u*, which means "wooden frame." A rough skeleton of wooden splints was built up and upon this were hung cloths which had been dipped in lacquer and which were set in place or hung in folds as desired and left to harden in that shape. The head and hands were usually modelled in clay, covered with the lacquered cloth, and when this was stiff and dry the clay was dug out and the hollow pieces fastened to the statue. Joinings were covered with lacquer, modelling of details was done with the lacquer paste, and the whole was gilded when completely dry. It was then but a hollow shell, supported inside by a framework of wooden beams, a statue light in weight and admirably adapted for carrying in processions. Many of the Japanese examples were made after this fashion, notably the great twelve foot high Fukukensaku Kwannon of the Sangetsudo at Todaiji.

The third variation of the process lent itself to the highest development of the art of dry lacquer sculpture. A core of clay was made upon which was laid first a coat of finely prepared lacquer and then several coarser ones. The whole was then covered with cloth, sometimes with two layers of cloth. Then coat after coat of lacquer was given it until the surface was like burnished bronze. When dry the clay core was dug out, leaving the hard light lacquer shell. As in the previous case, head and hands were often made separately and

attached to the trunk, the joinings covered by the many successive coats of lacquer. Lacquer, which is the thick greyish sap of the *Rhus vernicifera* tree with the impurities and water removed, is very slow in drying and as each thin coating must dry thoroughly and be highly polished before the next coat can be put on the same by



Back of the dry lacquer figure, showing papers found within the statue.

which this third process became known, *t'uan huan*, or "slow modelling," was very appropriate. As M. Hamada remarks, the "whole process was unspeakably laborious and took much care and time." However, it made most beautiful workmanship possible and the statues were very light and easy to carry, did not break and were not attacked by insects.

The details of the technique cited above have been gathered from Chinese and Japanese literature on the subject. The tradition that a woven basket work foundation was used for the Rotchana Buddha as a variation of the method in the eighth century is an indication that the artists invented new tricks of the trade from time to time and suggests that a careful study of each statue would show many interesting differences. It is unfortunate that so few Chinese examples of dry lacquer sculpture are known.

We have examined the construction of the Buddha in the University Museum and will describe it in some detail. Several features of its technique are novel.

First there is a flat wooden base which was made by joining two wide boards together side by side with iron staples and roughly rounding the whole into an uneven disc. In the middle of this is cut a rectangular opening by which access can be gained to the hollow inside of the figure. This hole was closed by a small wooden door hung on a flap of cloth.

From this base a wooden post goes up through the middle of the figure, running up the left thigh to the knee and chin. One can see the ends of other wooden splints which seem to support the shoulders. One such end is wound with cord of the nature of raffia.

Around this framework there appears to have been built up a crude core of white clay. Later, after the statue was completed, this core was removed but there was left, as telltale evidence, a thin coating of the clay over the interior, like a "slip" on pottery.

Upon this rough clay core was moulded layer after layer of paper; a tough paper, probably put on wet almost to a pulp, although it maintained its separate layers and therefore could not properly be termed "papier maché." Some of this paper had writing on it; characters an inch high show in one place.

A coating of coarse lacquer seems to have been put on next, and on this a layer of very rough cloth, like burlap, was fitted smoothly. Over the burlap was the thick layer of coarse lacquer paste modelled to a height of perhaps an inch in some places. The thick folds of the drapery are built up out of this paste. It is extremely hard and tough, has somewhat the appearance of a fine cork in texture and color, and has cracked badly with age. The very highly polished surface—where it remains—shows a fine thin coating of red lacquer as a finish. The gilding already described is now quite worn off in places.

It is impossible to tell whether or not any clay still remains in the head and hands. The hands were probably not made separately in this case but I believe that the head was. The way in which it is set on to the body gives that impression, and it shows more care in modelling and in details than the rest of the figure. Inside, the hollows of shoulders and arms are stuffed with masses of a coarse sawdust soaked in lacquer (probably), and with some of the lacquer paste. The whole interior, hard paper with the thin clay slip, has been stained a dark red-brown.

There is some evidence that two layers of cloth were used. Where the toes of the left foot have been damaged the cloth has been laid bare and two distinct layers may be seen, here separated only by a thin coating of a greyish powder, perhaps the preparation Prof. Hamada says was put between the cloth in some cases, a mixture composed of powdered whetstone and powdered earthenware. Whether there are two layers of cloth over the whole figure cannot be determined; only one appears at a damaged spot on the left shin.

A rather perplexing question is that of the identity of this figure. As has been noted the pose is a very unusual one. Only two other examples of it have come to my notice, both of which are in the Royal Ontario Museum at Toronto. The one is a small marble figure of a hairy, wrinkled, unkempt looking sage with curly beard and mustache and a large flat *ushnisha*, which, as in the case of the lacquer figure, has a hump in front of it not covered with hair. The attitude is almost certainly that of *samādhi*, an ultimate state of meditation in which perfect rapture or ecstasy is reached. *Cūda-panthaka*, one of the sixteen Lohans, seems to be represented in this attitude sometimes according to De Visser, but I have found no sure representations of him in exactly this pose. The other example in Toronto is a statuette in glazed pottery of a gnome-like figure with huge nose, pointed beard, and hair drawn up to a high top knot. The chin does not actually rest upon the hands however. It is not in the least Buddha-like. The dry lacquer figure in the University Museum, on the other hand, has the appearance of a Buddha, with its sleek smooth shaven face and the prominence given to the three chief "marks," the *urna*, the well defined *ushnisha* and the long ears. M. Salmony suggests that the pose and figure are that of Gautama Buddha in his final meditation just before he obtained Enlightenment.

It might be hoped that among the papers found in the statue would be something to indicate the identity of the figure, but appar-

ently these books are merely portions of sūtras, or Buddhist scriptures. Five, or parts of five, different works were concealed within the hollow Buddha, together, so we were informed, with bags "of perfumed ashes to protect the lacquer from worms" (probably the wooden framework) and a small parcel "containing the five organs made in silver but very rudimentary." The perfumed ashes and silver organs have disappeared but the papers are still with the figure. They comprise:

1. Three pages of a Tibetan Creed Book written in white and silver Tibetan characters on deep blue paper of a very heavy quality. There are two holes for the pins which held the leaves of the book to its carved wooden covers. The title of the work to which these belonged has not been determined.

2. Two long sections torn from a large sūtra printed in Chinese and illustrated with many wood block cuts. The reproduction on page 293 shows two pages of this paper but does not show the margin above or below. This, and the books following, were of the "accordion" type; that is, made of one long strip of paper folded back and forth upon itself between the two covers, the portion between two folds comprising a page. The printing in this case is of very good quality, the characters are well shaped and nicely arranged, and the woodcuts show good craftsmanship. The paper is an old tan of soft but tough texture and is in a strip thirteen inches wide. The folds come at intervals of five inches.

The book to which this belongs is probably one of the more popular sūtras. The illustration shows the beginning of a chapter on Virtuous Works and bears the title, "No Measure nor Limit to Virtuous Works." According to the label the woodcut represents a man who, through his good deeds, was enabled to leave his body and come up to Buddha where, in the full realization of the truth of the sūtras, he attained to a state of perfect joy.

3. A book of which only the first part was in the lacquer figure. It has a blue paper cover and measures $9\frac{1}{2} \times 3\frac{3}{8}$ inches. The title on the outside is *Chin Kang Kuan Yin Mi T'o San Ching*, or "The Three Sūtras, Diamond, Kuan Yin, and Amida." It is probably a book of selections from these sūtras. One of the first titles found inside the cover is *Pan-jo Po-lo-mi-to Hsin Ching*, which is the Chinese name for the Prajñā pāramitā hṛdaya sūtra, commonly known as the "Heart Sūtra" of the Prajñā pāramitā. Some distance further on in the book one comes to a second title, *Chin-kang Pan-jo Po-lo-mi Ching*, the

Chinese name for the Vajra-cchedikā Prajñā pāramitā sūtra, commonly known as the "Diamond Sūtra" in the Prajñā pāramitā. The Sanskrit *Prajñā Pāramitā Sūtra* is rendered in English (by Giles) as "the sūtra of the intelligence which reaches the other shore - Nirvana."



Detail from one of the Buddhist books found inside the dry lacquer Buddha.

A page of printing and a woodcut illustration.

4. Part of a third Chinese Buddhist book probably also made up of selections from translations from the Sanskrit. It has a blue linen cover of the same size as No. 3 and bears the title *K'ung-ch'iao Shui ch'an Chin-kang Mi-to Kuan Yin Ching*. The text is printed on both sides of the paper.

5. A little book in pinkish brown cover which is a copy of the *Ta Fang Kuang Yüan Chiao Hsiu-to-lo Liao-i Ching* or "Sūtra of the full Signification of the great detailed Sūtra of the Perfect Perception." This work was translated from the Sanskrit by Buddha-trāta in the seventh century A.D. This particular copy is doubtless of a very recent edition.

The finding of these papers, portions of Buddhist sūtras, in the hollow interior of the statue does not necessarily add to our information concerning either the date or the identity of the figure. The small trap door in the base could be opened at any time and things put in or taken out. There is no paper referring to the statue or what it represents. But in style and treatment the figure is of the later period—not the early T'ang. It has not the qualities seen in T'ang work, as already described, melting contours, rhythm of draperies, serene aloofness and dignity. The strong opposition of the composition, a certain immovable power in it, point, as M. Salmony says, to a great prototype, but it is a clumsy, lumpy figure on the whole, the draperies fall in folds that are actually ugly and the amused self-consciousness of the face belongs to the art of a later period. It was probably made during the revival of the dry lacquer technique in the Yüan period or in early Ming.

DWARFS AND DIVINITY IN WEST AFRICA

BY H. U. HALL

THIS grotesque figure in high relief on what remains of a small shieldlike bronze plaque has certain well marked characters which, clearly brought out in the two views published here, connect it with a small group of bronzes representing dwarfs such as are known to have been maintained at the court of the king of Benin in the seventeenth century.

The object belongs to a class of bronze ornaments one of which appears as fig. 268 in the late Henry Ling Roth's *Great Benin*. That example is rather inappropriately called an "aegis,"¹ and though its decoration in relief is of quite a different character and the object itself much larger, it has a loop for suspension like that at the top of the head of the figure on the University Museum plaque, the general shape of the latter when intact must have been much the same, and similar eyelets (in the former case in three separate groups) occur on the curved margin of the ornament in both cases. Ling Roth believed, on the analogy of other articles from the Niger Delta, that these formerly held "little hawk's bells." Whether or no this holds good for all objects of this class, the conjecture is verified for some of them at least by the presence of a few crotals hanging from the marginal loops of one figured by Pitt-Rivers.² In most cases the eyelets or loops form a continuous border of the curved margin, the straight upper edge of the object, which is shaped like a simple form of heraldic shield, being without them. A considerable number of these ornaments is known.³ The Benin collection of the University Museum includes several small ones.

Though they are all evidently intended for suspension, the ground of those which have not a loop or loops for that purpose being either non-existent between or about the figures or pierced in several places, it is not known how they were worn, if, as seems most likely, they were intended for the adornment of the person. Marquart

¹ P. 225.

² *Antique Works of Art from Benin*, pl. 19.

³ See, e. g., F. von Luschan, *Die Allertümer von Benin*, pp. 135, 284-286; A. Pitt-Rivers, *Antique Works of Art from Benin*, plates 4, 19, 32, 36, 38; C. H. Read and O. M. Dalton, *Antiquities from the City of Benin*, pl. XI; J. Marquart, *Die Benin-Sammlung des Reichsmuseums in Leiden*, pl. III and pp. 34-37. The term aegis seems to have been first applied to these objects by Pitt-Rivers.

thinks, that, like the small bronze masks, they were worn at the girdle and points to figs. 164 and 165 in Pitt-Rivers's *Antique Works of Art from Benin* and to *Great Benin*, p. 200, fig. 216. These represent the same object, a large ivory statuette of a woman with "a row of five leopards' heads hanging from the waist-belt, edged



Figure of a dwarf on a small, fragmentary bronze plaque from Benin.

with rows of pellets, or perhaps eyelets, but much defaced." A comparison of this with the leopard masks figured by Pitt-Rivers on plates X and XXV leaves little room for doubt, in spite of the defacement referred to, that Pitt-Rivers's interpretation of what Marquart calls "ornaments in semicircular form" is the true one, in view especially of the fact that we have, in the bronzes, many in-

stances of the wearing of masks at the girdle. Marquart seems here to have been misled by a superficial resemblance in form between the two classes of objects.

Although the greater part of the field or ground against which the figure stands in relief has been broken away, the curve of the margin at the right shows that this was a small plaque bearing a single figure. An unusual feature is the carrying up of the line of the upper margin, which is usually straight, symmetrically on both sides of the head of the figure as if to form a support—structurally unnecessary—for the head. A raised band consisting of a stripe of beaded decoration between two plain stripes forms a border which evidently surrounded the plaque, interrupted only by the head of the figure. A similar device forms the decoration of the figure's loin cloth, and, with doubling of the beaded stripe, that of its wide and loosely fitting collar. The outer surface of the loop by which the object was suspended is divided into three slightly raised stripes. The loop starts at the top of the narrow retreating forehead of the figure and takes the place of a headdress. The row of eyelets on the outer edge of the border of the plaque was probably continuous along the lower, curved margin.

The modelling of the figure is extremely simple, almost diagrammatic, and careless as compared with the best work of Bini sculptors. The left arm, for example, issues as it should from below the margin of the heavy, wide collar which hides the angle of the shoulder, while the right is, as it were, stuck on to the collar itself. In spite of this and the almost complete neglect in other respects of normal anatomical detail, the figure as a whole manages to leave a very vivid impression of deformity and also, in view of the fact that the head is actually longer, in a vertical direction, than the diminutive trunk, of dwarfishness.

Two typical marks of the Benin people of the XVIIth century were vertical cicatrizations over the eyes and down the middle and sides of the body. These consist most often of two groups of three stripes each on the forehead and of five long stripes on the front and sides of the trunk. Sometimes, as here, there are eight stripes on the forehead and three on the body. Three stripes on the body seems to be the rule for figures in half, or lower, relief and is probably only a matter of convenience in representation.

The collar of beadwork worn by the figure is a mark of rank and probably indicates that the wearer, in virtue of his physical peculiarities, held some official post about the court. Bracelets also

were a mark of official or hereditary dignity. In this case each is a spiral, apparently of stout wire, of one complete and two half turns.

The kilt or loin cloth is of the type worn by women of the period in question; but it is also found in contemporary representations of men. Probably it was for men the older fashion, succeeded, without being entirely superseded, by the loin cloth opening at the side and having the peculiar ornamental extension of the ends by which it was fastened that appears in so many of the bronzes. That this figure is not that of a woman is evident from the fact that the bare bosom does not show even the well marked development of the breasts that characterizes many of the male figures and, in the case of some of the bronzes, makes the determination of sex doubtful. The object held in the right hand is never, to my knowledge, represented as carried by a woman.

What is this object? It is necessary to abandon the opinion, expressed in a former article, which followed that of Read and Dalton, that this cylinder between two discs represents a peculiar form of drum. In view of Von Luschan's discussion of the subject it seems clear that it was a kind of casket, which was also a stool or seat. The objects carried by so many of the plaque figures are, however, small by comparison with the known size of stools from this region, and there is a short-barrelled variety of the casket which appears unsuitable for a seat. But the stools of the seated figures of the bronze plaques on which Von Luschan relies for his determination of the caskets as stools are, so far as one can judge from the illustrations, certainly decisive.¹ Von Luschan insists that, since the individuals who are shown on the plaques seated on these casket-stools are evidently persons of rank, therefore the persons shown carrying them are always of a menial order, stool-bearers to dignitaries.² The crucial case, in which a richly dressed warrior on a plaque carries one of the objects in question, he dismisses with a declaration, unsupported by any evidence, that this personage is not a warrior at all but somebody in a servant's livery. But, as we shall see, in Ashanti, a state which in many matters of custom and general culture closely resembled Benin, functionaries of no little importance at court carried their own stools, and this is specially affirmed of a class of functionaries who resembled our dwarf in their physical peculiarities.

¹ Figs. 158, 159, and pl. 38E.

² See Von Luschan, pp. 199-201, 425.

Though these objects are not drums, there is still, I think, reason to suspect that they were used, secondarily, as a kind of percussion instrument. The posture of some of the bearers of these caskets on the bronze plaques, who appear to be striking the top of the vessel or, in at least one case,¹ the side with one hand, and the posture of



Another view of the same figure.

the individual with whom we are here chiefly concerned seem to indicate this.

He grasps the cylinder, held horizontally, from above so as to press it against his pigeon-breast, at the same time leaving the greater part of a disc exposed and in a position which certainly

¹ Von Luschan, fig. 324.

gives the impression of its being presented for the reception of blows from the uplifted left hand or from something which may have been held in it—for the hand itself is missing, though from the position of the upward curving portion of the arm on which the bracelet marks roughly the place of the wrist it must have extended beyond the edge of the plaque. If the widely parted lips indicate, as probably they do, that he is singing or shouting, there is no doubt that his whole posture suggests the attitude of one energetically beating a drum to the accompaniment of shouts or song. Sculptors in Benin did not usually attempt to represent movement by the posture of the lower extremities. Though some of the bronze groups evidently picture individuals in a procession or in scenes which involve at least some degree of pedestrian activity this is certainly not as a rule suggested by the position of legs or feet. So there is no means of knowing whether this individual's rhythmic noises were accompanied by rhythmic movements of his legs, though I think it very likely that they were, arguing both from what we know of negroes in general and of dwarfish negroes in Guinea as well as elsewhere in Africa. Is this a dwarf and is he dancing? To the second question probably a positive answer cannot be given; there is no doubt that the first is to be answered in the affirmative.

Dr. F. N. Roth, a medical officer attached to the punitive expedition which captured the city of Benin in 1897, wrote in his diary: "While I was still in the city two solid cast brass figures were brought in. They represented dwarfs typical of cretinism." These are most likely two of the figures shown in a photograph made at that time by another medical officer, Dr. Allman. They are now in Vienna.¹ One of these figures Von Luschan believes to be that of a female dwarf, whose stunted stature, marked by the extreme shortness of her legs and arms, he considers to be due to achondroplasia, a condition which used to be attributed to "foetal rachitis" but which is now known to be a different disease and not rickets at all. The head of this Vienna statuette bears a close resemblance to a damaged bronze head in the Berlin Museum, and Von Luschan believed that both were portraits of the same person² "who probably played a great rôle at the court of Benin."³ The

¹ H. L. Roth, *Great Benin*, pp. 218, 219, and fig. 255; Von Luschan, pp. 299, 300 and figs. 445, 446; F. Heger, *Drei merkwürdige Metallfiguren von Benin*, *Mitteilungen der Anthropologischen Gesellschaft zu Wien*, vol. 46 (1916).

² Von Luschan, p. 363.

³ P. 300.

Berlin head is figured in the Album of Von Luschan's *Allertümer* on plate 65. The resemblance between the profiles of the two heads is certainly striking but the conclusion drawn from this likeness is hazardous, to say the least. It is true that achondroplasia is said not to affect the mental ability of persons afflicted by it but there is no reason to suppose that any woman, except the queen mother, who had a court of her own, would have the opportunity of "playing a great rôle" at the court of Benin, and although, as we shall see, deformed and dwarfish persons certainly played rôles of one kind or another at numerous African courts, we have no grounds for believing that these rôles were in any mundane sense "great."

A remarkable feature of both these heads is the shelflike protuberance of the upper eyelids. Such thick projecting eyelids are characteristic rather of the condition known as cretinism, a condition which is accompanied by serious mental impairment, than of rickets or achondroplasia. There is some confusion in Von Luschan's conception of the characters concerned. The legend to plate 65 of the Album describes the head in question as that of a "rachitic girl," or girl suffering from rickets, while a rachitic condition is expressly excluded from his discussion of these figures, and it is contended that they all represent "Mikromelen," or persons afflicted with achondroplasia.

It is in respect of the eyes that the individual portrayed on the small Museum plaque resembles Von Luschan's "Mikromelen." Bini sculptors usually represent the eyes of their models as prominent but also well opened, while the peculiarity insisted on in this small figure, in which the upper eyelids positively overshadow the rest of the face, is surely indicative of something pathological, probably cretinous, about this also otherwise deformed individual.

For not only the facial region proper, with the peculiarity just described, and the retreating forehead, whose abnormal height is probably due to the wish to make ample room for the forehead cicatrizations, mark the little figure as abnormal, but also it presents an exaggerated case of pigeon-breast. It is this feature, as strongly insisted on by the sculptor as the peculiar eyelids, which, apart from the abnormal relative proportions of head and trunk and the weakly appearance of the limbs, is most strongly indicative of the dwarfish character of the person depicted and gives the strongest clue to the nature of his deformity. In rickets one of the characteristic deformities affecting the trunk of the body is due to the flat-



A royal progress in Benin. Dwarfs and hunchbacks near the king, who is on horseback.

tening of the lateral curves of the ribs and the projection forward of the sternum. This condition is commonly accompanied and accentuated by a curvature of the spine, so that extreme cases approach, front and rear, the appearance of the genial Mr. Punch, the literary successor of the hunchbacked dwarfs who jested and capered once for European princes and nobles. Rickets is a disease of the bones due to faulty nutrition in infancy. Children who have had it grow up with some degree of deformity and dwarfing. A good example of the extreme type with which we are here concerned may be seen in a photograph reproduced in the *Bulletins et Mémoires de la Société d'Anthropologie de Paris*, as an illustration to a study of *Nano-infantilisme et folie* by Dr. A. Marie in vol. X (1909), p. 111.

This pigeon-breasted condition is accompanied and emphasized in the photograph just referred to, as it is in our figure also, by another characteristic feature of rachitic dwarfism. "The weight of the trunk on the summit of the sacrum is so much the most effective and continuous force applied as the growing child walks or stands that the whole pelvis is tilted forward on its transverse axis" so that the pubic region is displaced backwards.¹ If the figure of our plaque is regarded from the side, precisely this double deformity is obvious. It is no mere paunchiness that is intended to be shown here. The protrusion of the front of the trunk affects only the portion above the navel, which is represented on the steeply receding abdomen, the lower portion of which runs back almost horizontally towards the pubic region, the evident displacement backward of which is most marked. We have here certainly a case of rachitic dwarfism in an individual who also appears to be something of a cretin.

Examples of the representation, actual or alleged, of dwarfs on the bronze plaques or in bronze statuettes in the round are as follows: The two statuettes already mentioned; the head, also previously referred to, which Von Luschan connects with one of those two figures; several figures on small plaques illustrated by Von Luschan in the first of the two volumes of plates accompanying his *Altertümer* (plate 41), which he describes as "Dwarfs and Hunchbacks from the Suite of the King"; and the pigeon-breasted dwarf figured here. In Pitt-Rivers's *Antique Works of Art from Benin*, there appears on plate 22 a brass or bronze armlet "with four upright figures and four horizontal heads." All these heads, whether in their

¹ *Human Anatomy*, edited by G. A. Piersol, Philadelphia and London, pp. 167, 348.

places on top of the vertical figures or in their horizontal detachment, resemble, especially in the matter of eyelids, the head of our dwarf; they have weak-looking legs and pear-shaped bodies, but these last characters may be simply conventions of a rather grotesque mode and do not necessarily correspond closely enough to a possible model to make it anything but hazardous to attempt to assign these figures to this class of representations. Only two of the seven figures of Von Luschan's plate 41 are unquestionably deformed. Both of these are pigeon-breasted, one markedly so.

Apart from the evidence of the old bronzes themselves we have, to my knowledge, only one source of information which enables us to state positively that the King of Benin kept deformed persons and dwarfs at his court. This information is definite, but unfortunately there is not enough of it to give us much knowledge of the functions of these unfortunate creatures at the court.

Dr. Olfert Dapper, a Dutchman who wrote in the earlier part of the second half of the seventeenth century, from information supplied by an African traveller whose journals must have borne a somewhat earlier date, says that the King of Benin, who spent most of his life shut away within the walls of his compound from the gaze of his humbler subjects, showed himself once a year to the latter when he rode out into the city on horseback, "accompanied by three or four hundred noblemen on horseback and on foot, and a great number of musicians before and behind him, playing merry tunes on all sorts of musical instruments. . . . Then the king causes some tame leopards that he keeps for his pleasure to be led about in chains; he also shows many dwarfs and deaf people, whom he likes to keep at his court."¹ In the illustration of this scene supplied by Dapper, which is reproduced here, from Dr. Von Luschan's invaluable *Altertümer*, several dwarfs appear in the midst of the musicians and dancers who precede and follow the king. The dwarfs are close beside the king, on either side of his horse. Two, at any rate, are hunchbacks and one is pigeon-breasted. It is not to be supposed, of course, that this picture was drawn on the spot, but it is sufficiently true in other respects to known details to make it evident that it was drawn under competent direction. An earlier writer, also a Dutchman, known only by his initials, D. R., whose account of Benin Ling Roth took from the 1604 edition of De Bry's famous compilation,² tells us that the king's progress took place on

¹ H. Ling Roth, *Great Benin*, p. 74.

² *India Orientalis*, part VI, Frankfurt, 1604.

two days in the year, when "he goes out of his court to view here and there, and visits the town. He then shows all his power, wealth, and all merrymaking things and amusements he can think of, and can bring forth." Dapper's expression "once a year" evidently means "at one festival during the year," for he expressly says in another passage, evidently referring to the occasion which D. R. had in mind, that there was "also a day on which the king makes a great show of all his riches,"¹ etc. The allusion is evidently to the annual festival at which the king, as it was expressed in later times, "made father," i. e. celebrated with human sacrifices and other offerings the memory of his ancestors. There is a close parallel in the notorious "Customs" of Dahomey. D. R.'s "merrymaking things and amusements" no doubt included dwarfs and other deformities. Dapper's addition of "deaf people" to the other human curiosities illustrates the peculiar fascination which any obvious abnormality in otherwise familiar fellow-creatures had for potentates and their subjects.

Further to illustrate this and thus to throw some light on the functions of dwarfs and the beliefs concerning them in Benin, a summary review of our information on this subject will be necessary.

To begin with certain states of Upper Guinea, which have had a similar cultural development, and some of which are known to have had close relations with Benin:

Yoruba gave to Benin some hundreds of years ago the dynasty whose last representative was deposed by England in 1897. Here persons who were physically abnormal were maintained not only in the households of kings but also of lesser magnates, as we learn from the following tradition. A certain King Abipa, whose ancestors had reigned at Oyo, the ancient capital of the land, was determined to make Oyo once more the royal seat against the wishes of his principal chiefs. The latter, despairing of turning him from his purpose by persuasion or force, resorted to stratagem. Abipa was preparing to send persons to inspect the abandoned sites at Oyo, when the chiefs, learning of his purpose, chose from among their followers a hunchback, a dwarf, a cripple, and an albino, and sent them to occupy a hill outside the old town. When the king's emissaries arrived and were about to offer sacrifices to make the gods propitious to his plan, shouts of "No room, no room!" greeted them from the hill, which, during the night that followed, the messengers

¹ *Great Benin*, p. 74.

saw was occupied by what they took to be the spirits of the hill roaming about with torches and warning them not to attempt to carry out their design. The king then sent six hunters, intrepid men who were not likely to be frightened by shadows. Discovering the imposture, they brought in the counterfeit spirits, who were then questioned and disclosed the details of the fraud. Thereupon the king invited the traitorous chiefs to a banquet and caused them to be served with drink each by his own monstrosity. Consternation of the naughty officials and triumph of the king! He was henceforth known as Oba Moro, "King Ghost-Snarer."¹

Dwarfs, albinos, and others who differed strikingly from the physical norms of their fellow-countrymen we see, then, to have been regarded by the Yorubas as uncanny in some rather undefined way, having a form similar to certain potent spirits who carry out the will of the gods. From the narrator of the same legend we also learn that they are considered "as unnatural beings, suffering the vengeance of the gods" and "are usually kept as priests and priestesses to Obatala [deputy creator or collaborator with the high god, Olorun] and other gods, especially the albinos, dwarfs, and hunchbacks."² Both in their bodily and in their ghostly forms, then, they are instruments of the will of the gods and especially of the creator, who has in anger misshapen them and bound them to execute his will. Obatala, we are told, "forms the child in the mother's womb," deformity is regarded as his work, as punishment for neglect of the god, or as a reminder to his worshippers of his power.³

Bearing in mind the original close connection of the royal houses in Yorubaland and in Benin, we may suspect a similar relation between dwarfs and the gods in the two kingdoms. Further, since in Benin, the holy city of the latter kingdom, the king was in some sense a god, if the Yoruba conception of the proper functions of dwarfs survived in seventeenth century Benin, it would be peculiarly fitting that dwarfs should be servants of the king. In Yoruba the reason given for the special relationship of deformed persons to the king is singularly like that assigned for their relationship to the god: "Such beings, being considered unnatural, were the king's peculiar property;" while of hunchbacks, albinos, lepers, dwarfs, etc., it is

¹ S. Johnson, *The History of the Yorubas*, pp. 164, 165.

² P. 165.

³ A. B. Ellis, *The Yoruba-Speaking Peoples*, pp. 39, 40.

said that since they are "unnatural beings" they are the peculiar property of the gods and have a special name given to them for this reason, Eni Orisa, "the belongings of the gods."¹

Why then does the legend assign to great chiefs other than the king certain of these unfortunates as servants? Practice does not always follow theory exclusively, not excepting the practices which follow the principles laid down in myths. Perhaps these dwarfs, etc., were a sort of private chaplains attached to shrines in the jurisdiction of these chiefs. Or, since the great chiefs were deputies of the king, he may have delegated some of his sacredness to them as sanction of their departmental acts. There is evidence of such delegation in Benin.

In Dahomey, where, before the French occupation, at the annual Customs, hundreds of human victims were sacrificed in honour of the king's ancestors as they were in the similar celebration at Benin City, dwarfs and other deformed persons were maintained at the king's court and were in evidence, as at Benin, during the performance of the attendant rites. Their presence is remarked by several European witnesses of the ceremonies. R. Norris, whose account of Dahomey was published in 1789, and who visited the king during the performance of the Customs, says: "We dined as before in the market place, and in the evening, when I went to wait on the king, a female dwarf was introduced to dance before him, in which she acquitted herself very well; she seemed to be about thirty years old and measured only 2 feet, 7 inches, high, was without any deformity and tolerably well shaped."² This was evidently a true dwarf, like "General" Tom Thumb, and her only abnormality was in her extremely diminutive stature. At the Display of the King's Wealth [Cf. Benin], an incident of the Customs, F. E. Forbes relates that "on the neutral ground where we stood, facing the pavilion . . . roamed an ostrich, an emu (?), several dwarfs, hunchbacks, and albinos, besides troops of dogs almost of every country and variety." At the Custom of Firing the Guns—evidently the military parade of amazons and other troops which always formed part of the festivities—"the whole nation was military; mother, wife, daughter, minister, even the hunchbacks and dwarfs were strutting by in all the pride of military array." Forbes must have confused some of the spectators with the participants in march and countermarch and

¹ *History of the Yoruba*, pp. 103, 165.

² *Memoirs of Bossa Ahadée, King of Dahomey*, London, 1789, p. 112.

skirmish; or else, impressed by the large number of amazons in the army, he may have thought, as indeed his opening phrase implies, that the whole female population was, at least for the occasion, enrolled in the military forces: amazons were not allowed to marry, nor, overtly, to have lovers. At the distribution of cowries to officials during the Customs he saw "all the sublime and the ridiculous of the Court . . . assembled in the palace yard to-day: men of all heights, from giants to the dwarf of inches, hunchbacks, albinos and all that is hideous in the human race, besides beautiful birds, the gazelles, and dogs of all kinds."¹ R. F. Burton, not yet Sir Richard, at the "So-Sin" Custom, observed "the chief of the hunchbacks . . . wielding a circinal-edged hide whip and, assisted by his attendants" cutting his way through the throng. Four other hunchbacks and "a small troop of she-hunchbacks" also appeared at this ceremony. In a footnote to the first passage he says: "The Gobbo is here an institution. These deformities . . . are of both sexes and of all ages. We repeatedly saw troops of little she-hunchbacks."²

The general impression we get from much of this, so far as Dahomey is concerned, is that these hunchbacks, dwarfs, etc., were kept as mere curiosities, associated as they are probably, in fact, accidentally, with ostriches, dogs, and what not. Burton is characteristically literary, with his "Gobbos," and coarse, with his "she-hunchbacks," but though, like the other visitors quoted, he had no opportunity for a close study of Dahoman customs, he was, as always, a keen observer and noted, as we have seen, at least one hunchback in a position of authority.

A closer and more recent student of life in Dahomey throws a curious light on the subject. We shall return to him; for the present noting only that deformed infants were commonly exposed in Dahomey, and that a peculiar ritual in connection with their exposure was instituted, apparently to give official and divine sanction to, while controlling, a custom the indiscriminating practice of which for some reason it was felt necessary to check. Since, obviously, not a few of the deformed were spared and took a prominent part in the principal religious ceremonies of the year, I suggest that the official control of the brutal custom of exposure was instituted in order to secure a supply of hunchbacks and dwarfs for ritual purposes. The ghostly counterparts of these unfortunates who were

¹ *Dahomey and the Dahomans*, II, pp. 35, 78, London, 1851.

² *A Mission to Gelele*, London, 1864, pp. 5, 54-55.

left to die in prescribed localities were spirits potent for evil, a circumstance which recalls the Yoruban belief previously recorded. An offering of water was made at the Customs by the princesses of royal descent, who went in procession to secure it from the sacred ravine where the infants in question were exposed and which was haunted by these spirits.¹ There is some complex of beliefs and customs connected with the procreation of abnormal human beings, or of human beings regarded by the people as abnormal, which is quite widespread on the Guinea Coast, and which, if we had more details, might enable us to understand more clearly the attitude of West African negroes towards dwarfs and other monstrosities. Among the Ibo-speaking tribes of Southern Nigeria, who are neighbours on the east of the Bini, new-born infants which are regarded as peculiar from an Ibo point of view, e. g. those which are deformed, born with teeth, born as twins, etc., are exposed under the sanction of certain bans or taboos connected with a divine or supernatural power of the earth, to whom the exposed appear to be offerings.²

Passing to Ashanti, which is west of Dahomey and connected with it and with Yoruba and Benin by not a few similarities in customs and beliefs, we find again a certain prominence given to dwarfs and hunchbacks among the following of the king. In Ashanti, "the Creator made a herald, a drummer, and an executioner, and the precedence of these officials in an Ashanti Court is in that order." In a chant it is said of a herald "your heritage was a good master, your heritage was [the death dance] Atōpere." The herald, then, was an important court official, ranking even the executioner, who, in these countries where human sacrifices were an essential feature of the principal religious ceremonies, was a functionary of considerable importance; and he had also his share in ritual, which was not confined to that just alluded to. At the *adae* or Wednesday ceremonies when the spirit of departed rulers of the clan are propitiated, it is the time-honoured privilege of the herald to drink first from the ceremonial cup. He had access to the sacred groves. Our author was guided to the one at Santemanso by a group of official personages who included the Queen Mother, several elders, and the herald, who was "a little hunchback." For in Ashanti "in olden times hunchbacks were usually heralds."³

¹ A Le Herissé, *L'Ancien Royaume de Dahomey*, Paris, 1911, pp. 120 ff.

² N. W. Thomas, *Anthropological Report on the Ibo-Speaking Peoples*, I, pp. 10-11, 59-60, 12.

³ R. S. Rattray, *Ashanti*, Oxford, 1923, pp. 263, 282, 127, 97, 122.

These heralds, or court criers, we learn from another source, were distinguished by special headgear: "The criers, all deformed and with monkey-skin caps [were] seated in front" at the Yam Custom, which was celebrated annually when the yams were ripe in September. We hear again of albinos, who, as in Yoruba and Dahomey, seem to have had a special standing here: "The king [at the Yam Custom] had about a hundred negroes of different colours through the shades of red and pink to white; they were collected for state but were generally disgusting objects, diseased and emaciated . . . their eyes blinked in the light."¹ Bowditch tells us something of the function of these criers at court ceremonies. They accompanied the "linguists," or king's spokesmen. They were all deformed or maimed, their monkey-skin caps had a gold plate in front and the tail hanging down behind. "Their common exclamations are, Tehoo! Tehing! Odiddee! Be silent! Be quiet! Pray hear! and these are so incessantly uttered, that they are themselves the only interruption."² We may suspect Bowditch of a certain unfamiliarity with the language, but no doubt somebody told him what the cries meant. They suggest the Oyez! Hear ye! of English criers.

The missionaries Ramseyer and Kühne, long before Rattray, were informed of the official importance of the criers or heralds. They tell us that "the head of the court criers is a dignitary of the fourth rank." They also refer to the monkey-skin cap with its golden ornament: "The great monarch himself approached. He was heralded by some eighty individuals each wearing a cap of monkey's skin adorned by a gold plate, and each holding his seat in his hand." The last detail is interesting, considering the similarities in customs in these four adjacent negro states, since, as we have seen, our Benin dwarf is carrying a stool. Was he, too, a herald, and do the widely parted lips signify that he is calling for silence and the attention of the crowd to some ceremonial proclamation?

The missionaries do not mention the deformity of the heralds, which is, however, sufficiently attested by the other witnesses. They speak of dwarfs following, and buffoons in shirts of red flannel, in the company of the "officials of the harem."³ Probably they had got their classification of the members of the festival train confused.

¹ T. E. Bowditch, *A Mission to Ashantee*, London, 1922, pp. 276, 292.

² P. 298.

³ Ramseyer and Kühne, *Four Years in Ashantee*, pp. 71, 309.

The similarity in the attitude of the people of Yoruba, Dahomey, and Ashanti towards the deformed, and especially to those of less than normal stature, and the general similarity of culture which links these states together and with Benin, make it likely that the position of dwarfs in Benin, as a result of the mental attitude of the people towards them, was substantially the same, whatever the particular office or offices which they may have held at court or juju house or shrine of the gods.

Circumstances revealing a similar state of things are reported from parts of Guinea more remote from Benin, and indeed from still more distant parts of Africa.

In Sierra Leone, among the Upper Mendi people, Alldridge mentions a female dwarf, apparently, to judge from her photograph, a victim of achondroplasia, to whom "a certain amount of fetich was attached." "She accompanied the chief when he went about the country, was treated with every mark of respect and was looked upon as something more than an ordinary mortal . . ." Another "big chief" kept a male dwarf of the same type who "was also regarded in the same light as the other." He was strong and healthy and had two wives.¹ We do not find in Sierra Leone highly organized and strong states with powerful sovereigns as we do further east, but, making allowance for different political circumstances, we find the same general attitude—dwarfs are attached to the person of the chief and they are regarded with a superstitious respect.

In Loango, in the maritime Congo region, far to the south, both albinos and dwarfs were kept at the court. The latter, however, may have been racial dwarfs, or pygmies, and a consideration of the relations of pygmies to the peoples of larger stature who are or were their neighbours, while it is of interest in connection with our subject, would take us too far afield. As an interesting coincidence, however, if it is nothing more, it may be set down here that Commander Cameron, in 1874, came upon the institution of dwarf heralds, who were probably pygmies, among the Manyema in the east. "Many chiefs," he says, "called on us, and two of them each brought a dwarf, who carried a rattle, and shouted his master's name after this style, 'Ohé Moéné Booté, Ohé, Ohé!' and rattled the while. . . . Moéné Booté came shuffling up to me with a sort of sliding, half-dancing step, which did not get him ahead much more

¹ J. T. Alldridge, *The Sherbro and Its Hinterland*, London, 1901, pp. 120, 121.

than a yard a minute; and every two or three minutes he halted, while his marimba player and dwarf extolled his greatness."¹

To follow the pygmies would lead us to Egypt with its two great dwarf-deities, and the dancing dwarfs, presumably African pygmies, who on two recorded occasions were brought north for the dance of the god. The beginning of the story of how dwarfs became gods (or gods, dwarfs) in Egypt is lost in the screenings from the archæologist's sieve; but the process can be partly seen, partly inferred, in West Africa.

We have seen how, in Dahomey, deformed infants left to die became malignant spirits who had to be propitiated. The story is of sufficient importance, in the present connection, to be told in greater detail. The Tohosu are a particular class of spirits of the deceased. They frequent certain springs and lagoons, and the name is said to mean "kings of the waters." Near Abomey, the capital, the place specially consecrated to them was a ravine, with a spring, known as Dido. During the reign of a certain Tegbesu, a multitude of manikins, smaller than a new-born child, made their appearance. They ravaged the crops, caused a drought, and brought about so much distress that the people abandoned their homes and fled. A bedridden man, who was left behind, near Abomey, found himself surrounded by these dwarfs, who called themselves by a name which means "abortion," and explained their existence by saying that one of them was produced whenever a Dahoman man and woman came together. They said that they were indignant at not receiving the attention of infants normally brought into the world, and that they wished to have paid to them a cult like that with which their kind were already honoured among the Mahi of the mountains north of Abomey and that of the other spirits of the deceased in Dahomey. After this the Dahomans returned to their dwellings and Tegbesu sent priests to the Mahi to learn the forms of the cult of the Tohosu. When a Tohosu takes on visible form he does so in order to injure men. They are conjured by their worshippers not to leave their own place except to enter the temples set apart for the cult. Sometimes this entreaty is disregarded and a deformed infant is born, which must then be taken back to the haunt of the Tohosu from which it issued and there sacrifices must be offered to it. Eventually each sovereign set up a temple and a cult for an individual Tohosu, "either to avert the incarnation of these mon-

¹ V. L. Cameron, *Across Africa*, New York, 1877, p. 248.

strosities in the wombs of his wives or because one had in fact been born to him." The Customs, at which human victims were dispatched to serve the deceased kings in the other world and to inform them concerning the course of Dahoman affairs, began with the assembling of the descendants of the kings at the royal dwelling in Abomey. The night before the beginning of the public ceremonies which followed was to be spent by the princesses apart from their husbands. The next morning they went to the ravine of the Tohosu and fetched water, which each princess poured into a great jar placed before the altar or tomb of the king who was her ancestor.¹ If these Tohosu are not quite gods, they have almost reached that eminence, and they are at the same time dwarfs or manikins produced by the same physical causes which beget the dwarfs and other monstrosities whom, in Dahomey, we have seen spared to take part in the cult of ancestors at the Customs, while in Yoruba they became at once priests and spirits and in Ashanti were given at least a certain precedence in some of the ceremonies pertaining to ancestral cults and a prominent part in others.

There must be a relationship between these spirits and those reported by A. W. Cardinall from the Northern Territories of the Gold Coast. Ancient stone axes and hoes are called "axes of the evil spirits." These spirits are sometimes "visible to men, and in appearance resemble the *mmotia* of the Ashanti, ill-shapen dwarfs. Frequently they are born of women" and "their influence is evil. They must be killed."²

Whatever the actual steps by which these unfortunate victims of the divine anger, in each case, climbed up themselves to share, as by some malicious irony of history, the very seats of the angry gods, the soil, in which the seeds were sown of this compensatory harvest, was ready, wherever we have looked, in the superstitious respect in which monstrosities were held, as something strange, outside of normal human experience, hence belonging to that eerie, half-formless realm which rings the solid enclave of familiar day-to-day living about, and the inhabitants of which are spirits of varying potency and malignity made in the more or less distorted image of the average humdrum creatures of the enclave.

It is not easy to draw a line, if, indeed, one is to be drawn, between spirits powerful enough to be propitiated by sacrifice and

¹ A. Le Herissé, *op. cit.*, pp. 120 ff.; pp. 182-184.

² *The Natives of the Northern Territories of the Gold Coast*, p. 27.

gods. That Gold Coast, behind which lies the old Ashanti state, supplies several examples of dwarf-gods who seem to be quite up to the mark. Adzianim, a local god of the Cape Coast district, is one such, of human shape and black in colour. He is a provider of good water. Cudjo also is of diminutive stature and black. He is god of a shoal or reef near Cape Coast Castle and prevents the approach of enemies by sea. Abrokhu, the god of the surf which breaks upon the landing place, is of the colour of wood-ashes, and his form is that of a small, rotund man, with a short, broad face. Formerly, like Cudjo, he was malicious but is now benignant. He raises the wave that brings canoes safe in to shore.¹

In Yoruba, Aja, a goddess of the healing art, was a forest dweller. She was of human form but only one or two feet high.²

From the same region we have stories of two child-gods who may have some connection with the cult of the anthropomorphic diminutive. Tando, a god of the Tshi-Speaking peoples protects especially Ashanti. "Sometimes, to assist them, he will assume the appearance of a male child; and putting himself in the way of the enemy, will suffer them to take him as a captive to their towns, which he then devastates with a pestilence." Ellis believes that Tando—wielder of the lightning, god of storms, pestilence and floods—was, before Nyankupon, the high god of the Tshi-Speaking peoples. Another link in the chain of custom and belief between the states of the Gold and Slave Coasts, may here be noted in the fact that deputations of worshippers from Dahomey used periodically to attend the shrine of Tando.³

Slender information tending to establish no more than the mere existence of another, or perhaps the same, child-god of the Gold Coast is supplied by a traveller who visited Coromantin eighty years ago. As befitted a stalwart ex-Lifeguardsman, not to be misled by any nigger chicanery, he forced his way into the fetish-house where this "wonderful child" was said to have his shrine, thrusting aside the aged priestess who tried to bar his way, and found—nothing except the shrine.⁴

The connection of several of these dwarfish divinities with water is interesting. It finds a parallel in southeastern Africa among the

¹ A. B. Ellis, *The Tshi-Speaking Peoples*, pp. 40, 45.

² Ellis, *The Yoruba-Speaking Peoples*, pp. 79–80.

³ *Op. cit.*, p. 32.

⁴ J. Duncan, *Travels in Western Africa in 1845 and 1846*, I, pp. 51–54.

Baronga of Delagoa Bay. In great rains white dwarfs fall from the sky. They are called by a diminutive form of the name for "god" which is applied to all white men.¹ This is probably no more than a coincidental resemblance, and if the legend has any foundation in reality it may refer to pygmies who have a way in Africa of persisting in the legends of a people after disappearing from their actual horizon. Whether grounded in a former acquaintance with pygmies or in an actual acquaintance with pathological dwarfs, there is evidently a widespread cult of dwarfs in negro Africa, the details of which and their resemblances and differences would repay further study in the literature and in the field.

The Romans are said to have practiced the manufacture of dwarfs and of what Burton calls Gobbos through the infliction of ghastly cruelties upon children. Where there is a demand there will usually be an attempt to augment the supply; and a curious story narrated by Nassau seems to point to the existence of a dwarf factory in the Gabun which had got itself surrounded, probably through the influence of the manufacturers, with a fog of mystery. The negroes here told Nassau a story of "Asiki, or Little Beings," which once were human, but being caught in infancy by sorcerers, had their tongues cut out so that they could only make inarticulate guttural sounds. They were subjected also to other cruelties which had the effect of checking "their entire physical, mental, and moral growth." "They cease to remember or care for their former homes or their human relatives, and they accept all the witchcraft of their captors." They wear a curious ornament like a comb at the back of the head. If this is taken from one of them, it will bring wealth but the taker will be haunted by the dwarf. The Asiki are immortal; they can propagate their kind.² The association of the Asiki with treasure, their changeling character, their forgetfulness of home and friends are perhaps too reminiscent of European tales of fairies and of the kidnapping of mortal children by the Little People to smack quite authentically of Africa. The coastal people of the Gabun had been—long before Nassau's time—in touch with European traders and sailors, and it is possible that there may be here an example of the corruption, through the grafting on of alien elements, of a genuine negro legend based on facts.

¹ H. A. Junod, *Les Baronga*, Neuchatel, 1908. Notice in *Folk-Lore*, X (1899), pp. 227-228.

² R. H. Nassau, *Fetichism in West Africa*, London, 1904, pp. 299-302.

LECTURES

SATURDAY AFTERNOON LECTURES AT 3 O'CLOCK

The Fall Course of Lectures for Members of the Museum will be given in the Auditorium on Saturday afternoons as follows.

- November 5. Roosevelt's Trail down the River of Doubt, by Commander George M. Dyott. (Motion pictures.)
- November 12. The Lost Cities of Yucatan, America's Egypt, by Mr. Gregory Mason. (Stereopticon views.)
- November 19. The Land of the Ovis Poli, by Mr. James L. Clark. (Motion pictures.)
- November 26. Across Sumatra from East to West, by Professor Adriaan J. Barnouw. (Motion pictures.)
- December 3. The Lure of the Desert, by Mr. Fred Payne Clatworthy. (Colour photography.)
- December 10. By Aeroplane to Pigmy Land, by Dr. Matthew Stirling. (Motion pictures.)
- December 17. Patagonia, by Mr. Barnum Brown. (Motion pictures.)

SUNDAY AFTERNOON LECTURES AT 3.30 O'CLOCK

The Series of Sunday Lectures for the Public by the Docents which has proved so popular for the past two winters will be augmented this year by contributions from the Curators of the Museum. As in preceding years, the Course will run parallel to that given on Saturday afternoons.

- November 6. Florence, the Athens of the Renaissance, by Mrs. Loring Dam.
- November 13. What We Know about the Maya, by Dr. John Alden Mason.
- November 20. The World of Cleopatra, by Mrs. Walter Nowak.
- November 27. Art and Manners of Benin, by Mr. Henry Usher Hall.
- December 4. Ancient Emperors of the Sons of Han, by Miss Helen E. Fernald.
- December 11. The Great Moguls of India, by Miss Elizabeth G. Creaghead.
- December 18. Priests and Priestesses at the Time of Abraham, by Dr. Leon Legrain.

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JOURNEYS FOR CHILDREN OF MEMBERS

For Children of Members and their friends there will be at eleven o'clock on the second Saturday morning of each month from November to March inclusive, a series of Little Journeys into Far Away Lands. These Journeys may be taken with Mrs. Loring Dam

on November 12 to The Land of the Arabian Nights,
on December 10 to Old China,
on January 14 to Ancient Egypt,
on February 11 to The Land of the Maya, and
on March 10 to Darkest Africa.

GALLERY TALKS FOR MEMBERS

Particularly for the new Members of the Museum but also for all Members who would like to know more thoroughly some of the treasures in the Museum collections, Mrs. Loring Dam will give a series of informal Gallery Talks on Tuesday afternoons at four o'clock throughout the autumn on The March of Civilization. In offering this Course, which is open to Members only and their friends, we hope to encourage that enthusiastic sense of proprietorship which closer acquaintance with the contents and activities of the Museum should bring.

The program for the months of November and December is as follows.

November 8. The Dim Ages of Pre-History.
November 15. Babylonia's First Historians and Artists.
November 22. The Golden Age of Egypt.
November 29. The Age of Abraham.
December 6. The Age of Moses and of Tutankhamen.
December 13. The Hebrews and the Assyrians.
December 20. The Homeric Age: A Turning Point.

Members and their guests are requested to show Membership Cards at the Information Desk before each talk.

GALLERY TALKS FOR THE PUBLIC

For the Public there will be a series of Gallery Talks by the Docents on Monday afternoons at four o'clock, as follows.

November 7. Chinese Musicians, by Mrs. Walter Nowak.

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- November 14. The Toilet of an Egyptian Lady, by Mrs. Walter Nowak.
- November 21. Life in a Persian Palace, by Miss Elizabeth G. Creaghead.
- November 28. What We Know about the Maya, by Mrs. Loring Dam.
- December 5. Domestic Arts of Primitive People, by Mrs. Walter Nowak.
- December 12. Masks in Primitive Dance Festivals, by Miss Elizabeth G. Creaghead.
- December 19. Our Most Important Finds at Ur of the Chaldees, by Mrs. Loring Dam.

DOCENT SERVICE

Docents are at the Museum every weekday for the reception of visitors who may wish special guidance to the collections. This service is free upon request at the Information Desk.

SCHOOL LECTURES

Illustrated by lantern slides and by motion pictures, the usual courses of lectures for the schools of the City and vicinity will be:

FOR THE GRAMMAR SCHOOLS ON WEDNESDAY AFTERNOONS AT 2.30 O'CLOCK

- September 28. The Crusades and What They Taught.
- October 5. Greek Games and the Temples of Olympia.
- October 19. Hawaii and the Philippines.
- October 26. A Trip to China and Japan.
- November 9. Indian Life in our Great West.
- November 16. The Great World of Africa.
- November 30. Alaska: Among the Indians and the Eskimo.

FOR THE HIGH SCHOOLS ON TUESDAY AFTERNOONS AT 3.30 O'CLOCK

- November 1. Daily Life in Ancient Egypt.
- November 8. The Crusades.
- November 22. Rome of Caesar and Augustus.
- November 29. The Games and Temples of Olympia.

FORM OF BEQUEST

I give and bequeath to the Trustees of the University of Pennsylvania the sum of.....dollars, in trust for the uses of the University Museum. (Here, if desired, specify in detail the purposes.)

SPECIAL NOTICE

In order that The University Museum may give appropriate recognition to the substantial gifts which have been already received, and which will hereafter be donated or bequeathed for the development of its resources and the extension of its usefulness, the Board of Managers have adopted the following classification for contributors and members, and have resolved that the names of the donors of aggregate sums of \$25,000 and upwards, in cash, securities, or property shall be inscribed upon a suitable tablet or tablets, to be properly displayed in the Museum.

There shall be five classes of Contributors designated as follows:

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There shall be four classes of Members designated as follows:

<i>Life Members,</i>	who shall contribute \$500
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<i>Annual Members,</i>	“ “ “ 10 “

Contributors and Members are entitled to the following privileges: admission to the Museum at all reasonable times; invitations to receptions given by the Board of Managers at the Museum; invitations and reserved seats for lectures; the MUSEUM JOURNAL; copies of all guides and handbooks published by the Museum and free use of the Library.

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No. 4

TOMB SCULPTURES FROM PALMYRA

BY L. LEGRAIN

PALMYRA¹ in the desert is a magnificent ruin, a dead city, only known in our MUSEUM through some funerary monuments; a small but representative collection of fifteen busts and reliefs brought back by Dr. John P. Peters from Palmyra in 1890. They well deserve, after so long a span of time, a little attention, as most of them are portraits and bring vividly before our eyes rich merchants and noble ladies of Syria living in the second and third centuries after Christ and contemporary with that fascinating period of history when a woman, that intrepid warrior and astute politician, Zenobia, queen of Palmyra, could match in the East the fortunes of Rome, and from her capital in the desert command an empire extending from Egypt to Asia Minor and including Syria, Arabia, and Mesopotamia.

The traveller who leaves Tripoli, the blue waves of the Mediterranean, the vineyards and olive trees, to reach, beyond the rough pass of the Lebanon encumbered with basalt boulders, the high ground of Homs—the ancient Emese—and from there the silent immensity of the desert, has a delightful surprise at the end of his long journey, when the last bluffs of the limestone hills seem to open and display to his eyes the gate, the stately funerary towers, the long colonnades, and the temples of Palmyra. The setting sun puts golden touches on the rosy cream of the stones, so clear and warm that they seem to have been cut only yesterday.

All here spells Græco-Roman art and culture: the triple arch of the triumphal gate at the entrance of the main street, the high Corinthian columns, in places still supporting their stone architrave,

¹ Cf. *Choix d'inscriptions de Palmyre*, by J. B. CHABOT, Paris, 1922, our best guide to Palmyra.

and above all the great Bêl temple. Its shrine has survived plundering, earthquake, and destruction. It still stands up, 60 m. long by 31.50 m. wide, with its splendid doorway, 10 m. high, and its row of Corinthian fluted columns. Only the bronze ornaments which adorned their capitals have disappeared. The shrine itself stands in the middle of a vast courtyard, 235 m. by 235 m., enclosed by a high wall, and once lined with a forest of 390 Corinthian columns, disposed, except towards the west, in a double row. A stone console fixed in each column at about two thirds of its height supported once a statue of some great citizen. A stairway, 37.50 m. wide, gave access to this magnificent court through a porch with columns and three gates adorned with bronze doors.

And yet the desert seems to have put its stamp forever on the ruins. More than half of the great court is destroyed and the rest is crowded with the miserable mud houses of an Arab village. The very shrine of Bêl has been transformed into a mosque. Nomads pass unheeding below the memorial inscription engraved on the south wall in the second century A.D., by order of the Senate and the people of Palmyra, to two citizens, cousins "who revere the gods, love their country, and are famous for their generosity, and who have, besides, made at their own expense the six bronze gates of the great portico of Bêl." Who remembers today these two, Iarhibole and Auida? And yet Nicanor, the Alexandrian Jew, is still famous for the single bronze door with gold and silver ornaments which he gave to the temple of Jerusalem built by Herod shortly before the time of Christ.

The two springs which nourish the palm trees, created the oasis, and first tempted the ancient settlers of Palmyra still give clear water and run across the ruined city from west to east to lose themselves in the sands. One issues from a fair cave on the western hill as a beautiful stream three feet by one, the other passes, in an aqueduct, underground. Long lines of Arab women go from the village to the stream in the morning, balancing copper or earthen jars on their heads, to bring home the daily supply. Who cares for the solemn decree of the Senate in the second century A.D., which leased the water of the two springs, the spring Ephca and the spring of Cæsar, for eight hundred denarii—about 120 dollars—a high price, and which must have entitled the lessee to the yearly use of water for irrigation, bathing, and perhaps the watering of the long lines of camels of the caravan owners?



1. CBS. 8904

And yet the decree was inscribed in the two languages—Aramæan and Greek—in common use at Palmyra in the second century A.D. on a large slab of stone, 4.80 m. by 1.75 m., erected in front of the temple of an infernal god, “the chief of the chained ones”—Râb-asirê. The stone is preserved today in the Museum of the Hermitage in Russia. It was discovered in 1881 by a chance visitor to the ruins, the Armenian prince Abamelek Lazarew, who saw a corner with a few inscribed lines sticking out of the ground halfway between the stream and the temple of Bêl. The vicinity of the infernal god may have added its solemn sanction to the decree, which bore the general title: “Custom tariff of the trading post of Hadriana-Tadmor and of the springs Ælius Cæsar.” Tadmor is the Aramæan name of Palmyra, also called Hadriana after the visit of the emperor Hadrianus in 129 A.D.

Nothing so well as this inscription, with its detailed tariff regulations, could bring near to us the intimate life of the busy commercial community and reveal the daily movement of men, animals, merchandise, the continuous train of asses, the caravans of camels, the bustling crowd of traders, publicans, lawyers, brokers, magistrates, passing and pressing under the long porticoes which even now arouse our admiration. The animated Sûq of Baghdad, or the Galata bridge must offer a good modern picture of it. Through the inscription we become familiar with the city administration, its senate with president, secretary, two archons, and a council of ten. But we shall do better to listen to the opening sentences and the venerable words of the ancient text.

“Decree of the Senate. On the 18th of Nîsan, 448 [April 18th, 137 A.D.], Bonnê, grandson of Hairân, being president, Alexander, son of Alexander, grandson of Philopator, secretary of the Senate and the People, being secretary, Maliku, son of Ulaii, grandson of Moqîmu and Zebîda, son of Nesa, being archons, the Senate, being assembled in ordinary session, has decided as follows:

“As in former days many taxable articles were not inscribed in the law, but were taxed according to custom, because it was written in the contract of the tax farmer that he would collect according to law and custom, and since concerning these articles quarrels many times arose between the merchants and the tax collector;

“The Senate has decreed, that the archons and the council of ten shall examine all that is not included in the law, shall include it in the new lease and that the tax as fixed by custom shall be



2. CBS. 8905

inscribed after each article. When the farmer has ratified the lease, it shall be engraved with the old law on the stela standing before the temple of Rabasirê. The archons in office, the council of ten, and the syndics shall take care that the tax farmer do not exact from anyone anything above the tariff."

Without its trade, Palmyra, lost in the desert, far from the great political centers and difficult of access, could have secured to its inhabitants a large independence but not the enormous riches which enabled them to build the glorious monuments still covering the ground. Trade, import and export, made the fortune of Palmyra and brought about an incredible prosperity, which exalted beyond measure the pride of the native rulers, excited the suspicions and cupidity of the Romans, and caused the definitive ruin of the city in 273 A.D. The fortune of Palmyra hung on the fact that it was the main emporium on the caravan road by which goods from Persia, India, and the Far East were carried towards the Syrian coast and the rest of the Roman Empire. The expedition of Alexander had thrown open the roads of trade by land and sea. After his death Palmyra with all Syria fell to the lot of Seleucus and his successors. The prosperity of Antioch, their magnificent capital, contributed greatly to the development of Palmyra's trade. But it was only after Syria had become a Roman province in 64 B.C. that this trade reached its largest extension, stimulated by a growing taste for eastern luxuries in the rest of the empire. Palmyra itself remained a long time outside of the limits of the conquered province—Pliny the Younger writes that the city "preserved its independence between the great empires of Rome and the Parthians, who, when they go to war, always first try to enlist it on their side." Antony had formerly sent his soldiers to plunder it, giving as pretext the suspicious attitude of its inhabitants on the border between Persians and Romans, while he was in reality only moved by greed. But the Palmyrans, warned in time, fled with their riches beyond the Euphrates and left to the Roman troops an empty and inhospitable city.

While not mentioned in the war of Trajan against the Persians, Palmyra was probably drawn about that time—A.D. 115—into close relations with the Roman Empire, or was even incorporated into it. Hadrian visited it in A.D. 129, on which occasion the city took the name of Hadriana. The local tariff promulgated by the Senate of Palmyra in A.D. 137 shows that the Roman authority fully controlled

the municipal administration. The tax collector appointed by the city accepted his contract from the prefect of the province. In case of conflict anyone subject to the tax could apply to the *juridicus*, the Roman magistrate resident at Palmyra. About the same time the city supplied the armies with auxiliary troops, especially archers, for Palmyra was famous for its bowmen. Inscriptions in the Aramaic language and the Palmyrene script, which are due to some of its sons serving in distant parts of the Empire or to some of its merchants following the Roman armies, have been found in Rome, Egypt, Algeria, England, Hungary, and Rumania.

Palmyra was definitely made a Roman colony under Septimius Severus and shortly after Caracalla became associated with him in the empire, about 200 A.D. Severus Alexander, marching against the Persians, passed through the city, and his general Rutilius Crispinus sojourned there a while. If anybody remembered that passing of the Roman legions, it must have been that Julius Aurelius Zabdila, to whom the Senate and the people of Palmyra erected a statue—A.D. 242—because, says the inscription still preserved on the console bereft of its statue, “he was strategos of the colony, when the divine Alexander Cæsar arrived. He was in office when Crispinus, the prefect, came, and several times when the legions arrived. He was head of the market. He spent largely. He was honest. Therefore the god Iarhibol”—a sun god like Apollo—“and Julius Priscus testified that he loved and fed his city. Therefore the Senate and the People have erected this in his honor.”

Zabdila evidently received honorable mention from the god through an oracle and from the Roman prefect for undertaking expenses. Another prominent citizen, Malê son of Iarhai, a century before had been rewarded in the same way by a statue placed at the entrance of the temple of Baalsamîn, because, “When the divine Hadrianus came, he gave oil to the citizens, to the troops, to the foreigners who accompanied him. He supplied the camp with all requisites. He built the Temple, the pronaos with its decoration in honor of Baalsamîn . . .” The little temple with the six columns of its porch, is still standing and is one of the best preserved in Palmyra, a memorial to the public-spirited Malê, who spent his wealth for the honour of his native city.

In ancient cities, as today, it was the burden and pride of rich citizens to maintain their state and its gods, to be rewarded by public fame and the honour of a statue. We are not surprised to hear



3. CBS. 8912



4. CBS. 8906

that they had served the gods well, perfectly fulfilled the function of symposiarch or chief priest of Bêl, endowed a sacrificial foundation or the perpetual maintenance of the senate, presented a bronze censer, or erected six columns. But we are more interested to learn that Nesa was a successful caravan leader according to the merchants who came back with him from Phorat and Vologesias. Marcus Ulpius Iarhai, too, was a great man, who in many ways assisted the caravan returning from Charax Hispasina under the guidance of Zabdeateh. Now Vologesias, Phorat, and Charax are three cities of lower Mesopotamia which in the early Christian centuries were the main entrepôts and harbours on the caravan road for the goods of Persia and the Far East coming towards Palmyra. Vologesias was built on the Euphrates by Vologese, who was king of the Parthians at the time of Nero, below Babylon and not far from Kufa. The merchants from Palmyra had here a trading establishment and a temple to their gods. Phorat was built on a small hill near Basrah, which is today the best harbour of Iraq on the Persian Gulf. Charax, the capital of Characene, was restored in B.C. 200 by the Prince Hyspaosine at the junction of the Tigris and the Elæus, on the site of the present Muhamerah. The organization, direction, and upkeep of the caravans between Palmyra and the Persian Gulf was a very important business attended by many difficulties. The journey lasted about two months, during which the feeding of a large number of camels and men and their protection against the nomads had to be assured.

We are anxious to know what the caravans transported and to what kinds of goods the tariff solemnly decreed by the Senate applied. As a rule a camel's load is the load of two asses, and four camels' loads make a car load. A car load will pay four times the tax of a camel, an ass only half. Ten times a Roman *as* makes a *denarius*, worth about 15 cents. Here is a schedule of Palmyrene trade and taxes:

Slaves.—Imported to Palmyra: 22 denarii. Sold within a year: 12 d.; after a year, 10 d. Exported, 12 d.

Dried foodstuffs, like dried fruits, pistachios, and other nuts, beans, pine cones, straw, hay, and other unspecified goods. Camel's load, import or export, 3 d. Ass's load, import or export, 2 d.

Purple.—Dyed fleece passing from Phœnicia to Persia. Import or export, 8 asses.

Perfumes.—One of the main objects of trade. There were two qualities. The best was sold in small long-necked alabastrons often

bearing the name of the perfume maker. The common sort was sold in kid skins. Camel's load, alabastrons, import, 25 d., export, 13 d.; kid skins, import, 13 d., export, 7 d. Ass's load, alabastrons, import, 13 d., export, 7 d.; kid skins, import, 7 d., export, 4 d.

The export rate is 50 per cent below the import rate, perhaps to meet the competition of the Nabataean trade which brought into the Roman Empire spices and perfumes from Arabia. Palmyra controlled the Indian trade.

Oil.—Fine olive oil. Camel's load, four goatskins, import, 13 d., export, 13 d.; two goatskins, import or export, 7 d.: ass's load of two goatskins, import or export, 7 d.

Fat, in goatskins. Camel's load and ass's load as above.

Salted foodstuffs, chiefly fish from the lake of Tiberias, dried and salted. Camel's load, import, 10 d., export, 6 d.

Saddle animals, mules.—Tax rate not preserved.

Flocks and herds.—Per sheep and camel, import and export, 1 *as*.

Perfume dealer's monthly licence, 2 *asses*.

Prostitutes were taxed monthly by one of their acts, as fixed in Rome by Caligula, 1 d., or 8 or 6 *asses*.

Monthly *shop licence*, 1 d.

Skin, imported or sold, 2 *asses*. Camel skins were free of tax and were used as tarpaulins for covering the goods.

Water of the two springs, mentioned above, 800 d. A very high price.

Harvest of new crops not yet dried, might apply to barley, straw, or grapes. Camel's load, 1 d.

Pack animals, even when not loaded, 1 d., as fixed by Cilix, a farmer of the taxes, enfranchised by Cæsar.

So much for the old law. The new law of Palmyra maintained or increased the tariff.

Dried foodstuffs, 4 d. instead of 2.

Purple, 4 d. instead of 8 *asses*.

Salt from the salt lake about one mile and a quarter from the city. The lake is about three miles long by one mile wide. Even today most of the salt consumed in Damascus, Homs, and their territory comes from here and is probably dealt with according to a single uninterrupted tradition. *Per modius*, a large bushel measure, 1 *as*. The amount of salt was measured and the tax paid on it before its sale by the farmer. The new law rules that the salt shall be sold on the market, and that the buyer shall pay the tax of 1 *as*.



Butchers.—Per slaughtered animal, 1 d.

Whatever the importance of this local tariff might have been in 137 A.D., Palmyra in the third century had grown into an enormously rich city. Prosperity fostered the spirit of independence, and led to rebellion. The stern rule of the Roman master was always resented by this mixed Græco-Aramæan population. He represented the foreign domination imposed by military power. There is scarcely a Latin inscription among the seven hundred and more coming from Palmyra. The proximity of the Persian armies beyond the Euphrates was a great inducement for Oriental duplicity, which would break into open revolt as soon as the strength of the Roman Empire seemed to weaken on other frontiers. The tragic story of Queen Zenobia and the destruction of her capital at the hands of the Gallic legions reads like a story of yesterday.

Zenobia, whose real name was Septimia Batzabbai, daughter of Antiochus, or, in Aramæan, Halîphi, came to fame and power after the death of her husband Odeinat, murdered at Emese in 267 A.D., with his eldest son Hairan, by Mœonius, one of his relatives. Odeinat's father was already a "prince of Palmyra," his grandfather was raised to the dignity of Roman Senator, he himself had received the title *consularis* in A.D. 258. He was one of the most important political figures in the East, with a noble tradition behind him. As the Roman power declined, his star was destined still to grow, for his good or bad fortune. The following year, A.D. 259, the Emperor Valerianus fell a prisoner into the hands of the Persians, who plundered Syria and Cappadocia and took Antiochia. Odeinat at the head of the Palmyrene and Syrian troops tried to cut off the retreat of Sapor's army and forced him to recross the Euphrates. In those stirring times when emperors were rising to power and passing in quick succession, he supported Gallienus and ordered the death of a pretender, Quietus, son of Marcienus. As a reward, he was made *dux* of the Roman troops in Syria. But his ambition knew no limits. He called himself king. In a two years' war against the Persians he captured Mesopotamia, but failed to take Ctesiphon, the Persian capital on the Tigris. He was made *Imperator* and *corrector* of the whole province. His authority extended over all Syria between Egypt and Asia Minor.

His sudden death left his widow, Zenobia, sole mistress of her destinies. She at once assumed power in the name of her younger son, Vahballât. Gallienus refused to the young prince the titles



6. C3S. 8903

given to his father and even tried to recover Syria, but the prestige of Rome received another blow when his general, Heraclianus, was defeated by the troops of Palmyra. The next emperor, Claudius the Second, while refusing to acknowledge Vahballât as the representative of Rome, was too busy on the northern frontier to undertake a new campaign in Syria. Zenobia at once took advantage of the opportunity to fortify her son's dominion. Two men were the instruments of her policy. The Greek grammarian, Longinus, became her first minister and the Bishop of Antioch, Paulus of Samosate, declared himself in her favor. His orthodoxy was very dubious but his influence was considerable. It has never been proved that Zenobia was a Christian or even a proselyte.

In 269 A.D., while Claudius was fighting the Goths, Zenobia thought the time was ripe for the fulfilment of her ambition. Zabdas, her general, occupied Egypt and nearly all Asia Minor. He would doubtless have conquered Bithynia also if the new emperor, Aurelian, had not compromised in A.D. 270 and stayed Zenobia's conquests by important concessions. He acknowledged all the titles of Vahballât and her conquests and, to give to the pact public sanction, the mints in Antiochia and Alexandria were ordered to issue coins showing on the obverse Vahballât and on the reverse Aurelianus.

But what woman will ever rest satisfied with half of her dream come true? In A.D. 271 Vahballât is proclaimed "Augustus" and on the new coins the head of Zenobia replaces the head of Aurelian. Then the measure was full and the Roman Emperor decided to march on Syria and to destroy the new empire. At that moment it included the old provinces subject to Odeinat, Syria, Arabia, and Mesopotamia, to which Zenobia had added Egypt and Asia Minor, except Bithynia. Aurelian sent to Egypt Probus—the future emperor—and marched himself through Asia Minor. Egypt was reconquered in A.D. 271.

Aurelian arrived, by way of Galatia, in Tyane and pursued to Antiochia the retreating army of Palmyra. The first encounter was favorable to the Romans. The Roman cavalry was not so heavy or numerous as the Syrians but their legions were old, seasoned, unconquerable troops. Zabdas and Zenobia left Antiochia for Emese, their last line of retreat before Palmyra. Their forces still numbered seventy thousand men. The battle took place before Emese and turned into a disaster for Zenobia. The Roman cavalry played



9. CBS. 8911



8. CBS. 8909



7. CBS. 8910

again the same tactics they had played so successfully before Antioch. The Syrian riders were heavily protected, both men and animals, by plate armour. The Roman cavalry retreated before them without fighting, till they brought them, exhausted by the pursuit, in front of the legions, who won a decisive victory. Zabdas and Zenobia with the remainder of their broken army, fled back across the desert to Palmyra, whither Aurelian followed them, harassed all the way by the nomad supporters of Zenobia. The city was well defended and a regular siege was necessary, as the inhabitants refused to capitulate. Persian help was near. It was expected at any moment, but in vain; for the Persians were beaten and forced to recross the Euphrates. Zenobia decided to leave the city and to go in person to enlist Persian support. She left Palmyra secretly. But Aurelian, aware of her flight, despatched a cavalry corps which overtook her just as she was about to cross the Euphrates. The queen was brought back to the camp a prisoner but she was treated with kindness by the emperor. A few days later the city opened its gates to the Roman troops, which collected a rich booty—A.D. 272.

The emperor left a garrison at Palmyra and returned to Antioch. At Emese he ordered the execution of some of the leaders of the revolt, among whom was Longinus. The soldiers asked for the death of Zenobia, but she was reserved for the triumph of the emperor in Rome. Her son Vahballât probably accompanied her.

But the worst was still awaiting Palmyra. Aurelian had scarcely arrived in Europe when revolt broke out again at the same time in Alexandria and Palmyra. In the last city, the Roman governor, Sandarion, and his six hundred archers were put to death and Antiochus, probably a relative of Zenobia, was made king. The wild joy of the Syrians in the last flaring up of the blaze of revolt was bound to vanish like the desert mirage. Marcellinus, prefect of Mesopotamia, sent a fast rider to the emperor, who returned at once by forced marches to Syria, entered Palmyra without fighting, and delivered it up to his soldiers for pillage and final destruction, A.D. 273. The rich and proud city never arose from its ruins. It passed out of history and after the Moslem conquest its very existence was forgotten. The crusaders ignored it. The Spaniard, Benjamin di Tudela, visited it and found a Jewish community there. When it was rediscovered by English merchants of Aleppo at the end of the seventeenth century, the veracity of their report was very much doubted.

The golden threads of legend began to intertwine with history round the figure of Zenobia. The triumph of Aurelian took place in A.D. 274 in Rome. Byzantine chroniclers tell us that Zenobia figured in the pageant laden with golden chains. The great queen who, for a while, had held in check the Roman power ended her days in a modest villa at Tibur, graciously donated by her victor.



11. CBS. 9187

10. CBS. 9188

Zenobia in all her glory must have looked very much like the elegant women of Palmyra in their best attire, as preserved in our collection of busts. She wore, probably, the same long tunic of light material—fine wool or linen?—flounced and embroidered at the neck, falling to the elbows and leaving the arms bare. The woollen or silk mantle was fastened in front of the left shoulder by a circular metal brooch or clasp, with pendants. A large veil, like the modern Syrian *izâr*, was thrown over the head, falling gracefully on the shoulders and enveloping the upper part of the body. But Oriental luxury triumphed in a gorgeous display of turbans, crowns, diadems, strings of pearls, precious stones, earrings, necklaces, rings, bracelets, and

jewels of all kinds. The hair, waved and parted, was drawn back over a metal—probably gold—band decorated with incised patterns and cutting a straight line above the eyebrows. The hair was covered by a flat turban made of a long scarf of rich material, sometimes embroidered with rich patterns in gold and silver threads, twisted round the head or rolled like a crown. Heavy jewelled bands made of large stones set on round, oval, or rectangular metal plaques, which were strung on silk or metal threads and assembled by links, hung from above the turban, and divided in two splendid lines across the masses of undulating hair. Three round gems or pendants were attached in the middle above the eyes, like them glossy and mobile. Earrings were heavy pendants made of beads, rings, sprays of flowers, bunches of fruits. There were innumerable necklaces, strings of pearls, gold, silver, stone beads, with pendants, inverted crescents, chains with locketts and plaques, and still other pendants, arranged in tiers and falling lower and lower on the breast. The bracelets were simple and cylindrical or twisted heavy spirals with studs in relief. The ring was worn on the little finger of the left hand. The usual attitude is graceful and shows the lady at her best, one hand across her breast holding a fold of her mantle, while the other hand is raised, daintily drawing aside one edge of the veil and revealing her beauty.

Such busts in relief are excellent and true portraits of the inhabitants of Palmyra in the second and third centuries A.D. We owe them to the riches and luxury displayed by the great Palmyrene families to satisfy their vanity and secure for themselves an abode in eternity. Their tombs were of two kinds, the tower tombs lining the main entrance of the city to the west, and the rock cave tombs cut in the side of the hills, like the more familiar catacombs in Rome and the monuments along the Via Appia, the tomb of Cecilia Metella, the pyramid of Cestius, and the largest of all, the tomb of Hadrian, now the Castello S. Angelo. Their busts and reliefs within and without the tombs have their modern parallel in the funerary monuments of our cathedrals, an attempt to preserve above the decayed bones of the great a stone likeness of them at their best and a name for eternity.

The best preserved tower tombs of Palmyra are the tombs of Elahbêl and the tomb of Jamblic. The first is built on a square plan, 9.50 m. on each side, and it has two storeys. The door is surmounted by a triangular lintel resting on two consoles. At a height of 12 m. above the ground, a balcony supported by two consoles

forms a kind of stone bed for recumbent and standing figures. Above the whole is a round window. The room at ground level measures 7.63 m. by 3.35 m., and is 6.43 m. high. The sides are divided into four compartments by pilasters with Corinthian capitals. Each compartment is subdivided by stone slabs into six vaults, where once rested the mummified bodies. Early travellers saw some of the bodies still there, and the Ny Carlsberg Museum in Copenhagen has the only one now known. The rest have been destroyed by Arab peddlers in their search for medicine. The ceiling is adorned



12. CBS. 8908

13. CBS. 9189

with a casement pattern and white roses on a blue ground, with a central relief of three groups of four busts each, all of which are clothed in purple shirts with a white, blue, or black scarf or mantle about the neck. The back wall has five more busts of women between columns supporting an architrave. Above the architrave a sarcophagus adorned with four female busts was once surmounted by a bed and a reclining figure, now missing. A canopy resting on fluted columns surmounted the whole and ended in four bands covered with inscriptions. Other busts were placed one above the entrance and five above the small stair leading to the second floor. The second floor has the same arrangements as the first, but no decorations, and was probably reserved to poorer members of the family. While the outside walls are of a coarse gray stone, the inside walls and ceilings are of a white, smooth stone painted red. The letters of all

inscriptions are also painted red. No other tomb has given us so many inscriptions. The main dedication is engraved on a marble plaque placed outside under the balcony. It reads in Greek and Aramæan:

"This tomb was built by Elahbêl, Mannai, Sokaii, and Maliku, the sons of Vahballât, the son of Mannai, the grandson of Elahbêl, for themselves and their children, in the month of Nisan, in 414 (= April 113 A.D.)."

The largest cave tomb was not reserved to one family, but was a mortuary undertaking which provided room for more than 390 bodies in a T-shaped artificial excavation of the hillside. Groups of vaults were sold by the original owner and resold on speculation. Its interior was decorated with reliefs; also, and chiefly, with remarkable paintings on stucco, as well as with painted inscriptions giving the names of the various owners and the titles of their properties. The paintings are exceptionally interesting as representing a Greek school of painters active in Syria in the third century, whose models must have influenced Roman art and decoration long before the Byzantine school existed. The winged genii supporting a bust of Niké in a circle are reproduced in the same attitude on the old mosaic of S. Praxede in Rome.

Jews and Christians undoubtedly had communities in Palmyra. We hear of a tomb "built forever with all its ornaments by Zebîda and Samuel son of Levi, son of Jacob, son of Samuel, in honor of Levi their father, for themselves, their brothers, their sons, and grandsons forever—April 212 A.D." Marinus, bishop of Palmyra, was with the delegation of Syrian bishops at the Council of Nicæa. The dedication of small altars in Palmyra to an anonymous god "Whose name be blessed forever," savours more of the Jewish tradition and ritual than of any definite Christian influence.

But it is high time to introduce in details the Palmyrene busts which are the motive and excuse for this paper.

1. Bust of a lady of quality with dresses and jewels as described above. She has her arms bare to the elbows, the right hand extended across holding the upper fold of her mantle, the left raised to draw slightly aside the edge of her veil. She wears a large supple tunic and a mantle fastened with a large round clasp on the left shoulder. Her turban below the veil is made of a rich embroidered material, with rosettes of four petals and palmettes in a network of bands with

dots. The hair is parted, waved, and drawn back over a gold(?) band with geometrical incised designs. A heavy jewelled band hangs from above the turban, and divides in two above the hair. It is composed of large round, oval, or square stones, set on metal plaques, each with a line of dots around it, and mounted on five or six linked strings. Three round beads hang in the middle of the forehead. The small earrings are bell-shaped. Four necklaces hang in tiers, each with a central pendant, a round stone set in a metal ring. The lowest pendant is the largest, of oval form, set in a ring of dots which may represent pearls or small stones. The first necklace is a simple string, the second a chain, the third a string of beads, the fourth a double chain. The bracelets are large twisted spirals with studs. A ring on the left little finger completes the adornment of the lady.

Her face is of a plain round type, with large eyes, prominent straight eyebrows, not meeting, strong straight nose, sensuous lips, firm round chin, on a short and well-proportioned neck. The whole is full of energy and decision. The eyes with the outer angle slightly lifted, the high cheek bones and round cheeks and the plump arms add an Oriental charm to the regular features.

The bust is cut in high relief. The head is almost detached from the limestone block in which it is cut. The inscription on the right is spurious. Arab dealers do not hesitate to add such meaningless signs, in the hope of exacting a higher price from unsuspecting buyers.

CBS. 8904. From Palmyra. 495 mm. \times 370 mm.

2. Bust of a lady as before. Her name is inscribed on the right in the square letters of Palmyra: "Jedi'at, daughter of Si'ona, son of Peim(a). Alas!" She wears the long flowing tunic, with arms bare to the elbows; the mantle fastened with a round clasp on the left shoulder; a veil; a turban made of a twisted, folded scarf. Her hair is parted and drawn back over a metal band cutting across the forehead. The band is engraved with palms, the symbol of Palmyra, and a network pattern between bands of dots. The earrings are in the form of a small acorn. A long lock of hair falls on the right shoulder below the veil. The breasts show through the light material of the tunic and mantle. There are two simple necklaces with pendants; one is a string, the other a chain. A ring on the left little finger and bracelets(?) add a last touch to her beauty. A curtain pegged to the wall by two rosettes forms the background.

CBS. 8905. From Palmyra. 50 cm. \times 44 cm.

3. Female bust in relief as before. It is still more simply adorned. The right arm is muffled in the mantle thrown over the left shoulder. There is only one necklace of beads. The hair is parted and drawn back over the metal band adorning the forehead. Rosettes, between bands with dots, decorate the circlet. A veil is thrown over the light turban. The features are strong, with large eyes, high cheek bones, round, firm chin. The whole figure was probably enclosed in a circle or frame of leaves and must have been cut out of a larger relief or a sarcophagus.

CBS. 8912. From Palmyra. 405 mm. \times 265 mm.



14. CBS. 9186

4. Portrait bust of "Ma'ân, son of Bar'a, son of Zabad'ateh. Alas!" So says the inscription on the right. This man wears his waved and curled hair low on his wrinkled forehead. His eyes are large—and painted black—under prominent eyebrows. The deeply furrowed cheeks and cheek bones are evidently copied from nature. The nose is strong and straight. A short beard and trimmed moustache surround a sad mouth. The ears are large and projecting. The costume is, as usual, made up of a tunic and a mantle thrown over the right shoulder and muffling the right arm. The right hand holds the edge of the festoon in front. Another angle of the mantle hangs over the left shoulder and is held in the fold of the left arm. The left hand carries an uninscribed tablet. The little finger has a ring.

CBS. 8906. From Palmyra. 59 cm. \times 38 cm.

5. Funerary relief of "Malku, son of Moqîmu. Alas!" Malku is reclining on a bed; his left hand pillowed on a high cushion holds a cup. His right, resting on his drawn-up knee, holds a fruit or a flower. He is evidently enjoying what he hopes will be an eternal banquet. Two young servants standing behind hold, one a cup and a dipper, the second a two-handled vase with the good mixture. The association of death and the life beyond with a banquet is familiar to the Eastern mind. It is found on many reliefs in Greece, Italy, and Asia Minor, not to mention the parable of the wedding in the Gospel, or the words of the Lord at the Last Supper.

Malku and his servants are dressed in tunics slightly opened at the neck and decorated with embroidery in front and round the neck and lower edge. Beads, scallops, chevrons, network patterns, are found on the tunic, and on the long trousers falling to the ankle, also on the cushion and the rug covering the bed. A mantle or toga is thrown round the neck, fastened by a clasp on the right shoulder, and wrapped round the left arm. The common headdress, a cylindrical cap somewhat larger at the top, is here missing. Malku is bareheaded. His thick short hair is thrown back, waved and curled. A curtain has been pinned against the wall with two rosettes and serves as a background. The practice survives in the East.

Cup and vase are stippled and suggest metal work. The belt of Malku is loose, as becomes a man at rest, while his servants wear it tight, forming a fold.

CBS. 8902. From Palmyra. 545 mm. \times 445 mm.

6. Young servant bringing a dish—a roast lamb—to the funeral banquet. He is dressed as above in an embroidered sleeved tunic. The embroidered patterns are rosettes, leaves, and lines of dots. The young beardless figure wears long curly hair, with masses of curls falling on the neck. The eyes are large with slightly curved eyebrows. The nose is thin and long. The cheeks form an elongated oval above a long neck marked by two folds of flesh. Spurious inscription.

CBS. 8903. From Palmyra. 535 mm. \times 365 mm.

7. Head of a woman. Same style of turban, jewels, and head-dress as before (No. 1). The head has been cut out of a larger relief.

CBS. 8910. From Palmyra. 240 mm. \times 185 mm.

8. Head of a woman as above (No. 3). The gold band above the forehead is decorated with a palm between two bands of beads. Cut from a larger relief, so that part of the hair on the right is missing.

CBS. 8909. From Palmyra. 215 mm. \times 170 mm.



15. CBS. 8907

9. Head of a woman as above (No. 3). The band above the forehead is decorated only with vertical lines. Cut from a larger relief.

CBS. 8911. From Palmyra. 23 cm. \times 17 cm.

10. Head of beardless young man. Cut from a larger relief.

CBS. 9188. From Palmyra. 19 cm. \times 15 cm.

11. Head of a beardless young man. Cut from a larger relief.
CBS. 9187. From Palmyra. 185 mm. \times 130 mm.

12. Head of a man with short beard and moustache, and a tuft of hair hanging in the middle of his forehead, which is marked with a few wrinkles. Cut from a larger relief.

CBS. 8908. From Palmyra. 95 mm. \times 90 mm.

13. Head of a beardless young man. Cut from a larger relief.

CBS. 9189. From Palmyra. 95 mm. \times 90 mm.

14. Beardless head. Bust in a circular frame decorated with long tongues or leaves. The youthful figure wears a tunic and a mantle thrown over the left shoulder. Cut from a larger relief.

CBS. 9186. From Palmyra. 115 mm. \times 105 mm.

15. Relief representing a chained dog, or rather a leopard, to judge from the spots, the powerful claws and teeth. The hair is treated conventionally, showing a heavy growth behind each limb and round the neck. A strong ring on the back united two straps, one round the neck and the other round the body, which served to secure the wild creature. It is pictured on a frame of beads and curved leaves.

CBS. 8907. From Palmyra. 395 mm. \times 350 mm.

Dr. Harald Ingholt of the Ny Carlsberg Glyptotek in Copenhagen, the museum which is richest in Palmyra sculptures, wrote on December 14th, 1925, to the late Dr. G. B. Gordon: "During my work in Palmyra this spring, I discovered a sarcophagus in one of the tombs with a representation similar to that of No. 8907 in the University Museum."

WHAT WE KNOW ABOUT THE MAYA

By J. ALDEN MASON

(From a lecture delivered at the Museum on November 13th)

THE land of the Maya nation in Guatemala and the surrounding countries of Yucatan, southern Mexico, Salvador, and northern Honduras has frequently been termed the "Egypt of America." Trite as the term is, it becomes daily more and more appropriate. First employed because of the superficial resemblance of its archæology to that of Egypt, it receives especial sanction now that it is recognized that the Maya culture is probably the oldest of the higher civilizations of America, that it was the fountain head from which many elements of culture spread to the surrounding nations, and that its dated monuments may be employed as the time scale by which other American cultural phenomena can be dated.

That the Maya are not accorded their proper place by the average person who thinks of precolumbian America entirely in terms of Aztec and Inca is due to the fact that the Maya at the time of the Conquest had passed the acme of their achievement and had somewhat retrograded, whereas the Aztec were in the ascendant at that period, although their civilization, largely founded on that of the Maya, had not attained the status of the latter.

Taking into account their background and environment, the Maya made as great an achievement as any of the great nations of antiquity. If they did not in all respects attain to so advanced a goal, they had run a longer race and covered more difficult ground. The Greeks, for instance, had a long background of Egyptian, Babylonian, Persian, and Mediterranean cultural achievement to draw upon and to stimulate them by competition. The Greeks had a temperate climate, metal tools, wheeled vehicles, and draught animals to draw them. All of these the Maya lacked. Their tropical climate is, and probably always was, enervating and debilitating and one which made agriculture a ceaseless struggle against the encroaching jungle. Yet here they developed one of the outstanding civilizations of the world, without any contact, so far as has been proved, with the Old World. They were the only people in the world thus to evolve a high civilization in a tropical environment. Only a people



A corner of the so-called House of the Governor
Uxmal, Yucatan

of great innate ability, energy, and social consciousness could have accomplished this.

The Maya were the only nation in America who had invented a system of writing and were able to make exact records. The later Aztec possessed a rather different system, but there seems to be little doubt that the Aztec system was inspired by that of the Maya. This system of hieroglyphic writing is universally acknowledged as the foremost intellectual achievement of ancient America and one of the great accomplishments of the world.

Hardly less of an intellectual achievement than the invention of the hieroglyphic system was the decipherment of it, for no bilingual inscription has ever been discovered, nor is there much likelihood of such a find. The first slight clue was found in the writings of Fray Diego de Landa, one of the first bishops of Yucatan, who described the calendrical system and figured and interpreted a few of the hieroglyphs, but in the main the glyphs were deciphered like a modern secret code, solely by deep study, trial, error, and trial again until the tentative ascription of values gave life and meaning to the inscriptions.

Although up to the present time less than half of the known glyphs have been deciphered, they give us the skeleton of Maya chronology, since almost all of those so far interpreted are calendrical, astronomical, and mathematical and refer to definite dates. A few symbols for the cardinal directions and for the colors pertaining to them, some figures of gods and a few naturalistic objects conclude the sum of the deciphered glyphs. The undeciphered half of the total number of glyphs may record the historical events which took place upon these dates. These hieroglyphs are in the main conventionalized pictures and symbols, pictographic and ideographic, but with traces of phoneticism; they are not alphabetic.

The origin of this hieroglyphic system is lost in the mists of antiquity; no tradition records the name of the originator nor the details concerning the invention. Although the oldest known date records only 96 B.C., the well-developed character of the symbols indicates that they must have undergone a long period of development, and their cursive and curvilinear nature indicates that they were drawn upon a smooth surface long before the art of sculpture developed sufficiently to permit of their being carved upon enduring stone.

In addition to these permanent hieroglyphic inscriptions carved upon stone, the later Maya possessed many books written with these

same characters. Unlike the relatively imperishable monuments, these works in which were recorded all the knowledge of the Maya and which existed in quantities at that time, perished as a sacrifice to the bigotry of the Spanish priests. Bishop Landa wrote, "I collected four thousand of their iniquitous books and images and burnt them on the public square of Tikal, much to the lamentations of the natives." The native could hardly bemoan this holocaust more bitterly than does the student of today, for only three of these priceless books, all now in libraries in Europe, escaped the searching eye and the match of the friars. These three surviving codices apparently deal with astronomical and mathematical tables and probably were primarily concerned with magical formulæ.

The fact that this lore and wisdom was confined to the priestly class was no doubt the cause of the practically complete eradication of all Maya science and wisdom at the time of the Conquest, for the native priests were, of course, but arch-devils in the eyes of the Spanish priesthood and probably few of them survived by many days the conquest of their villages. However, upon the burning of their books, the remnants of the priesthood and the more enlightened nobles, eager to save what knowledge they could from the wreck, set down in writing in the Maya language, but in the Spanish characters which by that time they had learned, as much of the history, religious ceremonial, and other lore as they could remember. It appears that every village possessed one of these works, which was known as the *Book of Chilam Balam*. These works, which were no doubt hidden from the Spanish clergy during the less enlightened days, have fared better than the codices and fourteen of them are known. One, *The Book of Chilam Balam of Chumayel* in the Brinton Collection in this MUSEUM, was reproduced in facsimile a few years ago. None of these books has ever been fully translated, for the expressions are archaic and many words have lost their ancient meanings, but most of the historical passages have been translated and give us our chief information on the course of Maya history, apparently agreeing with the evidence of archæology. My great predecessor, Dr. Brinton, took the lead in the translation of these works.

It is also through references in the books of Chilam Balam that the clues are given by which Mayan and Christian chronology may be correlated. On this question there has been some argument, for many of these clues do not agree, but the most widely accepted authorities differ by only a short time in their correlations.



One of the great arched niches of the House of the Governor
Uxmal, Yucatan

Before reviewing the history of the Maya, let us briefly consider their calendrical system and the astronomical observations and mathematical calculations upon which it was based, for no feat of any people of equal background has ever surpassed it. It ranks, with the hieroglyphic system which records it, as the greatest intellectual achievement of aboriginal America.

All calendrical systems must be based upon an exact determination of the length of the year, a difficult feat for nations without precise astronomical instruments. The year, as we know, cannot be divided into an exact number of days or of months, consisting as it does of 365.2422 days and 29.53 lunations. These fractions have ever been the stumbling block of calendographers. The Julian year which was in use in southern Europe until 1582, in northern Europe until 1700, and in Russia until a few years ago, was twelve minutes too long, so that at the time of the Russian adoption of the Gregorian calendar it was wrong by nearly two weeks. The Maya, two thousand years before that, without accurate astronomical instruments, had calculated the length of the year to within one day in 2148 years. Our present calendar is little more accurate, being correct to within one day in 3323 years. The lunar period had been calculated with similar accuracy with an error of only one day in 300 years. In addition to this the Maya determined with great accuracy the periods of the revolutions of Venus, probably of Mars, and possibly even of Jupiter, Saturn, and Mercury. The Venus calendar was frequently employed, and they were aware, for instance, that eight solar years almost exactly equal five Venus years, and 65 Venus years 104 solar years, or two of their calendar rounds. The solar, lunar, and Venus calendars were combined in permutations so that incredibly long periods of time were calculated. Calculations up to 34,156 years have been found. Eclipse periods were predicted and very abstruse mathematical calculations made. These calculations were based mainly on accurate and long-continued observations on the solstices, equinoxes, and on two points in the agricultural year, April 9 and September 2.

The recording of the mathematical tables depended upon the realization of, and required the invention of a symbol for, the concept of zero. This is another of the Maya's claims to fame. The symbol zero is so matter-of-fact to us that we fail to realize the unusual character of the sign, a symbol for nothing. Yet without such a symbol, rapid mathematical calculations are impossible; 120 could

not be distinguished from 1200. It is the zero symbol which makes place-value numeration possible. Nevertheless, it was not until between the sixth and seventh centuries that our symbol for zero was invented in India, from whence it spread to Europe several centuries later. The Maya, the only other people in the world to invent such a concept, anticipated the Hindu inventor by a thousand years.

The Maya and the Aztec had a similar and very involved calendrical system by which, by means of permutations of names and numbers, they were able to distinguish any day in a "calendar round" of fifty-two years. The Aztec went no further than this and were unable to distinguish between days of the same name in different fifty-two year periods. The Maya, however, were not contented with this method and evolved another system, known as the "long count," by which they figured, as we do, elapsed time from an initial point. In this they counted by *kins* or days, *uinals* of 20 days, *tuns* or years of 360 days, *katuns* of 20 years, and *baktuns* or cycles of 400 years. There is good evidence that they also recognized a great cycle, though whether this was of 5200 or 8000 years is disputed.

With these few notes on Mayan intellectual achievements, let us turn to the much more interesting topic of Maya history.

First of all, let me say that the American archaeologist recognizes no relationship between the Maya and any people of the Old World. The extreme difference in physical type, language, and the fundamentals of culture is enough far to outweigh any superficial resemblances. The Maya were and are, by blood and language, pure American Indians and their culture entirely American.

The origin of the Maya we shall allude to but briefly, since it is of small import whether they migrated from the north, south, or west or developed in their present habitat. Their march toward civilization began possibly several millennia B.C. when they, or, more probably, the neighboring peoples of the Mexican highlands, first domesticated the wild Mexican grass *teocentli* and from it produced maize or Indian corn. With the beginnings of agriculture, life became sedentary and comfortable, leisure time for the development of civilization increased, and the population grew. Later they added beans, squash, chile peppers, cotton, tobacco, cacao or cocoa, pineapples, and domesticated bees. The invention of the art of making pottery followed close on the heels of agriculture.

Up to the time of the Christian era, our knowledge of the Maya is mainly surmise, but the wonderful civilization that sprang into full



A stucco façade with figures of the animal-headed deities of the Maya
Acanceh, Yucatan

bloom in the next few centuries presupposes many centuries of development. During this period the hieroglyphs were developed, though probably written on perishable mediums, and the foundations of all the arts were laid. The astronomical observations on which the calendar system was erected were also made during this time.

Maya history may be said to begin in 176 A.D., the date assigned to the first vague legendary statement in the historical chronicles. However, for the period of the Old Empire, which lasted until 600 A.D., the chronicles afford us no more than a few vague, general statements; the history of this period is derived almost entirely from the study of the actual remains and the dates as carved upon the monuments. The Old Empire of the Maya, which lasted more than four hundred years, is divided by students into three periods, an Early or Archaic Period to the year 357, a Middle Period to 455, and a Great Period to 600. During this time, dozens of great cities and hundreds of smaller villages were built by the vigorous people.

The oldest of the great cities is Tikal in Guatemala, where was erected the tallest building in the Maya region, attaining with its pyramid to a height of 175 feet. The great city of Copan in northern Honduras was probably the most important of the cities of the Old Empire. The great hieroglyphic stairway, before its almost complete destruction by an earthquake, was probably the most extraordinary and wonderful sculptural product of aboriginal America. Consisting of some 90 steps of 25 feet in width and 125 feet in length, the risers were completely covered with carved hieroglyphs, composing an inscription of 2500 glyphs. It was built about 500 A.D. The architecture of Copan is typical of that of the cities of the Old Empire, the main buildings being grouped in a civic center upon great mounds of earth which elevated them like an acropolis. Large courts and plazas play a great part in the general plan. Upon the whole, however, the edifices of the Old Empire cities are rather plain and massive and without great interest; the artistic urge of the people found its expression in the sculpture of stelæ, altars, and such independent figures rather than in the embellishment of their buildings.

The most typical city of the Middle Period of the Old Empire is Palenque, a large and well-known ruin in southern Mexico. Here, owing to an apparent lack of suitable stone for carving, most of the decoration is in stucco relief, which the Maya made by burning the



A Maya Indian of today making baskets for picking coffee
Guatemala

plentiful limestone. In this modelling the Maya artist achieved as admirable results as in stone carving, and the stucco reliefs at Palenque are among the most admired examples of Maya art. In architecture, the most important feature is the tower which originally consisted of four stories, communicating by interior stairs. Buildings of more than one story and interior stairs are both of great rarity in the Maya area and speak highly for the ability of the Maya builders in those early days of architecture.

The Great Period or the Golden Age of the Maya reached its height at about the year 520 A.D. The acme of Maya culture was attained at this time when they must have enjoyed a civilization far above that of our Teutonic ancestors in Europe and one probably rivalling any in the world at that period. Some seventeen cities known to archæologists were flourishing in the foothills of northern Guatemala and the surrounding region. The arts and sciences were pursued and the common people must have had a comfortable existence.

The great city of this period was Quirigua in Guatemala. It is here that the most beautiful and largest examples of Maya sculpture are found, the architecture of the city being of slight importance. The stelæ, which, like those at Copan, bear dates which indicate that one was erected every five years, are exceptional both for their size and beauty.

About the year 600 A.D., for some reason which has not yet been determined, the great cities of Guatemala seem to have been abandoned. Numerous explanations have been advanced for this, such as devastating plagues of yellow fever, earthquakes, the impoverishment of the soil due to too intensive agriculture, or a change in climatic conditions with increase in rainfall. At any rate, no date later than 600 is found in any of the cities of the Old Empire. For the next three and a half centuries the Maya were in a period of transition, during which time, apparently, the center of the civilization moved from Guatemala northward toward the tip of the peninsula of Yucatan. Here sprang up the Maya civilization anew in a glorious renaissance which lasted from 980 to 1450. New, more, and even more beautiful and admirable cities sprang up; architecture, sculpture, and all the fine arts experienced a rebirth, but architecture rather than sculpture is the crowning glory of the New Empire.

The history of this period is mainly derived from the native chronicles in the Books of Chilam Balam and others, for few dated



Descendants of the ancient Mayas; an Indian family of Guatemala

monuments are found in the New Empire. The traditions are, however, so full and detailed as to afford a clear picture of the events of this period, and they are substantiated and augmented by archæological evidence.

Scores of cities sprang up, of which three stand preëminent, Mayapan, Uxmal, and Chichen-Itza. Of these, the first two were founded in the tenth century, but Chichen-Itza had a far older history, having been first settled as far back as about 500 and subsequently abandoned. It has thus the longest recorded history of any city in America, 800 years. About the year 1000, these three cities, each the center of an important tribe and ruled by aristocratic nobles, formed a confederation by which the country was to be jointly ruled, and for nearly two centuries the land enjoyed peace and prosperity, the fine arts flourished, pyramids, temples, and other grand structures sprang up everywhere, and the land supported a great population. This period, from 1000 to 1200 A.D., was the New Golden Age of the Maya.

Today, naught but mounds marks the site of the mighty city of Mayapan, but the ruins of great Chichen-Itza and Uxmal still rear their stony spines above the Yucatecan jungle, attracting thither scientists and tourists from the world over. They are the most interesting ruins in America.

For, about the year 1190, jealousy and overreaching ambition put an end to the second Golden Age of the Maya which had flourished for nearly two centuries. The nobles of the three allied cities fell out and civil war ensued. At first, the quarrel was apparently between Mayapan and Chichen-Itza and the resulting conflict changed the complexion of Mayan culture decidedly. The ruler of Mayapan seems to have called to his aid mercenaries or allies from the Valley of Mexico far to the northwest. These allies were the Toltec, the predecessors and cultural tutors of the Aztec. They enjoyed a high grade of culture, practically equal to that of the Maya themselves, with whom there seems to have been considerable interchange of cultural elements. The Toltec at this time had probably just passed the height of their glory and their empire was beginning to disintegrate as did that of the Maya after them. It was, however, nearly two centuries before the Aztec began their phenomenal rise to power. The Toltec were probably still occupying their great capital at Tula, which is now generally identified with the great ruined city of San Juan Teotihuacán near the City of Mexico, where

they erected pyramids, one of which covers a larger area than any in Egypt. It is probable that the growing influence of the Toltec in Yucatan, exciting the hostility of the native Maya, was the primary cause of the civil war. Mayapan seems to have been the center of Toltec influence in Yucatan. Be that as it may, there is little doubt that the lord of Chichen-Itza plotted against his colleague of Mayapan, who, by Toltec aid, defeated him and took possession of Chichen-Itza.



Seated stone figure
Department of Quiché, Guatemala

Then began the Toltec régime in Yucatan which lasted for some two and a half centuries from 1200 until about 1450. Throughout the greater part of the country, the alien presence left no mark, but in the three great cities the Toltec influence was strong. Uxmal held aloof and yielded to the new fashion only in the erection of a ball-court; Mayapan must have been thoroughly Toltec in art and architecture, but that city has been utterly destroyed. Chichen-Itza was enlarged and beautified by a number of imposing edifices in Toltec or Toltec-influenced style in a new section of the city.

Toltec buildings are differentiated from the Maya by a rather lighter and more flowing style, by buildings supported by columns, and especially by columns in the shape of conventionalized feathered serpents, the emblem of Quetzalcoatl or Kukulcan. The ball-court, examples of which are found at Chichen-Itza and Uxmal, is a Toltec element. Most of the more ornate and beautiful buildings at Chichen-Itza were built during this period.

Naturally the rule of the alien Toltec over the native Maya became more and more arrogant and unbearable, until at the end of two and a half centuries of oppression, the natives were goaded to desperate rebellion. Under the leadership of the lords of Uxmal, who had heretofore kept neutral in the conflict, the Maya forces united, attacked Mayapan, and slew all the members of the reigning house about the year 1450. Mayapan itself was so utterly destroyed that today but a few mounds and scattered stones are to be seen.

The fall of Mayapan marked the end of Maya civilization. Apparently the entire country fell into civil war and discord. Chichen-Itza, Uxmal, and most of the other large cities were abandoned and no others built in their places. Famine and pestilence, the latter doubtless introduced by the earliest Spanish explorers along the coast, depleted their numbers, and close upon its heels followed the conquerors themselves with their muskets, ferocious dogs, and inquisitorial flames. The first landings of the Spanish on the coast were in 1511 and 1517, but it was not until 1527 that the conquest of the country was attempted. For fourteen years the Maya carried on a desperate resistance, succumbing at last to the superior arms of the Europeans.

The independent spirit of the Maya was not entirely broken, however, and after three centuries of Spanish and Mexican rule they again revolted, and successfully. In 1847 they succeeded in recapturing most of Yucatan except the larger cities. Northern and western Yucatan have since come again under civilized Mexican control, the independent Maya having retired to eastern Yucatan, where, in the territory of Quintana Roo, they continue to preserve their independence free of alien control, and to practise their old customs and rites.

Today the Maya Indians still inhabit the peninsula of Yucatan and much of Guatemala, their numbers estimated at 300,000. They are a fine race of American Indians, intelligent, sturdy, independent, industrious, and cleanly to a superlative degree. Most of them work

in the great fields of agave or henequén from which comes our sisal hemp for binder-twine. Many of them speak nothing but the Maya tongue and every Yucatan plantation owner speaks Maya as he does Spanish. But with the extinction of the leisured class, the priests and the nobles, all the accumulated wisdom and craftsmanship of millenniums were soon forgotten and today only the great abandoned structures in the dense jungles bear witness to the heights attained by the Maya, one of the greatest of the nations of antiquity.

The architecture of the Maya is naturally their major claim to distinction; no other architecture in primitive America can compare with it. Its merit lies, however, more in point of ornament than technique of masonry. Technically it betrays the faults of a new art, one not highly developed or freed from the bonds of experiment. Most Maya buildings were built upon pyramids which differ from those of Egypt in being solid without mortuary chambers, in being built of rubble or concrete instead of cut stone, and in serving as foundations for buildings, being furnished with broad exterior stairways.

Typical Maya buildings are of two types, small temples and larger palaces, the former generally on high pyramids and consisting of a few rooms, the latter low, broad, and containing many rooms. The common people, of course, lived in small perishable huts of wood and thatch like those occupied by their descendants of today.

The topic of Maya art is one that should be discussed only by an artist. It is enough to say that, with few exceptions, all artists who have investigated it hail it as one of the great art schools of the world, and the movement for a renaissance of Maya motives in modern art is gaining impetus daily. While hardly on a par with Grecian art, it ranks with any of the earlier schools and in many respects exceeds them. Certain carvings display a praiseworthy knowledge of the principles of foreshortening and composition. Like the ancient Greeks, a fact which is not commonly known, they painted their monuments, buildings, and sculptures with bright colors, of which sufficient traces have remained to enable us to restore them.

The sculptor's art achieved a superlative degree of eminence among the Maya, especially those of the Old Empire, both as regards carving in relief, in the round, in wood, and modelling in stucco. It ranged from the working of small amulets, ornaments, and beads of jade and other semi-precious stones, to that of great monoliths, altars, and the decorative embellishment of their edifices, which was carried

to a point of exuberance. It must again be stressed that this work was done, as everywhere in America, without the use of metal tools, solely by the use of harder stones and sand, coupled with endless patience, time, and "elbow-grease." The labor of making such a great and wonderful façade as that on the Palace of the Governor at Uxmal, 725 feet long, 10 feet wide, and containing not less than twenty thousand cut stones, can hardly be appreciated. Carving



Large Maya censer of unpainted pottery
Chipál, Guatemala

in wood was probably highly developed, but only a few examples, mainly on the lintels of buildings, have been preserved for us.

In the lesser and more industrial arts also the Maya equalled the work of any other people of America and in many respects of any in the world. In the weaving of textiles, for instance, they may have equalled the Peruvians whose wonderful fabrics excite the admiration of textile experts and artists. The early conquerors state that the Maya were the most expert weavers in New Spain and that the Spanish mistook their fine cotton garments for silk. Unfortunately, not a piece of Maya textile has been preserved, owing to the damp-

ness of the climate, and our sole knowledge of its excellence is derived from such reports and from the depiction of textiles on Maya monuments.

The work in pottery was admirable. It took the form of figurines which may have been used either as idols or dolls, plain vessels for cooking, carrying water, and burying the dead, and more ornate



Large urn or censer of Maya manufacture
Chipál, Guatemala

and delicate vessels for ceremonial usages. Among the latter are urns of moderately large size and thick pottery which are presumed to have been employed as censers. These are ordinarily tall and of hour-glass shape with a high basal septum, the two vessels figured on pages 367 and 368 being typical of this class of object. The ruder vessel, NA-11370, is unpainted while the other, NA-11320, bears a simple ornamentation in red, yellow, and black.

The finer vessels are of many different shapes, types and methods of ornamentation. One of these, NA-11088, of graceful form but unpainted, is shown on this page. The three relief heads, apparently portraying a face in repose, are excellently made. This specimen also illustrates the labor of building up vessels in the laboratory of the MUSEUM from the very fragmentary condition in which they are often found. Other vessels are of more grotesque form, such as No. 12688 figured on page 370, portions of which are decorated with



A dainty Maya pottery vase, restored in the Museum
laboratory
Chamá, Guatemala

designs in red and black. Both of these were probably used for the storage of water.

Pottery vessels of the better class, however, are decorated either by carving or painting. Among the most beautiful of Maya objects are the pottery vessels decorated with carving in low relief, of which the vase No. 12696, shown on page 371, is typical. This is, like most of the vessels of this type, unpainted. Two lively figures, attired with rich cloaks and elaborate headdresses and ear ornaments, are apparently seated facing an ornate object between them. This

may be purely decorative but more probably represents some esoteric concept the meaning of which has now been forgotten.

The most impressive of the pottery objects, naturally, are those decorated with painted designs. One of the most striking of these, No. 12700, is reproduced on page 372, much of its beauty lost, however, by the omission of its coloring. It is a tripod bowl, a form very



Maya pottery vessel with grotesque relief face
Department of Quiché, Guatemala

typical of Mexico and Central America, decorated with designs in bright colors, mainly red, orange, yellow, and black. The central figure is most difficult to analyze but probably represents one of the anthropomorphic deities of the Maya of the Department of Huehuetenango, Guatemala, from whence the specimen comes. The extremely conventionalized design apparently may best be interpreted as a predatory bird with human head.

The finest and also the rarest of Maya pottery objects, however, are the large cylindrical cups decorated with scenes from Mayan religious ceremonies or other figures in bright polychrome. This MUSEUM possesses an exceptionally good collection of such vessels and is now engaged in publishing these, as well as the finest examples of Maya pottery found elsewhere in the world, in a large portfolio



A Maya pottery vase with carved and incised decoration
Department of Quiché, Guatemala

album. Six of these exquisite vessels in the collection of the UNIVERSITY MUSEUM are reproduced on the adjacent pages, with their beauty, however, diminished by the absence of the rich coloring which characterizes them, and in which red, orange, and black predominate. All of these are from ruins in the Department of Quiché and were probably made by the Quiché, one of the highland Maya tribes.



Maya tripod bowl with conventionalized designs in bright polychrome
Department of Huehuetenango, Guatemala



The Bat God of the Maya painted on a large pottery cup
Chamá, Guatemala

The Bat God, the principal figure on vessel NA-11222, shown on page 373, is frequently represented in Maya art, especially in the codices and on pottery vessels. The outspread wings, the hooks on the hands, and the peculiar upturned nose are well portrayed, but

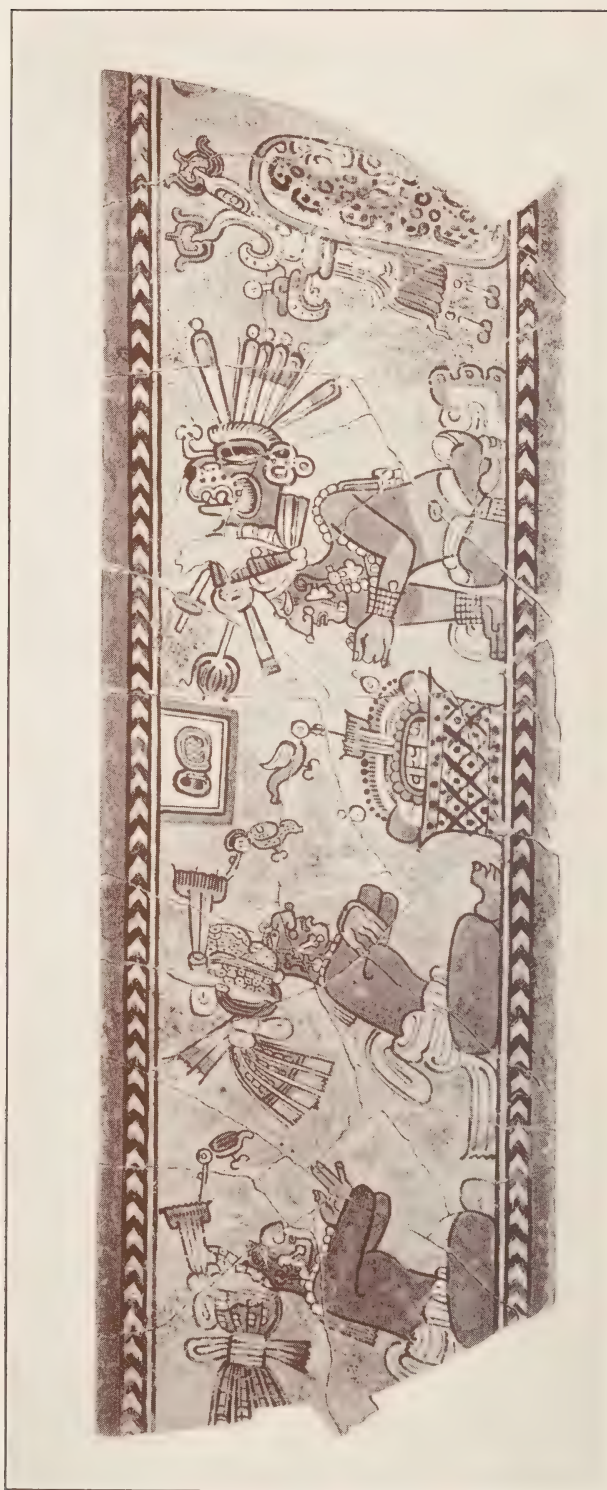


One of the fine polychrome painted vases of the Maya, showing the Rabbit God.
Chamá, Guatemala

the general human character is obvious. The curved lines proceeding from the mouth represent speech. At the right may be seen a vertical line of hieroglyphs, which, however, are probably of purely decorative value.



Large painted pottery cup depicting a religious ceremony and ornamented with hieroglyphs
Department of Huehuetenango, Guatemala



Extension of the decoration painted on a large pottery cup depicting Maya priests or nobles engaged in a ceremony
Chamá, Guatemala

Another of the lesser deities was the rabbit who is shown painted on the polychrome vase NA-11185 on page 374. The large ears and other characteristics of the rabbit appear in rather a conventionalized and anthropomorphic style. A large necklace with pendent ornament hangs from the neck and the usual decorative line of hieroglyphs is seen at the left.

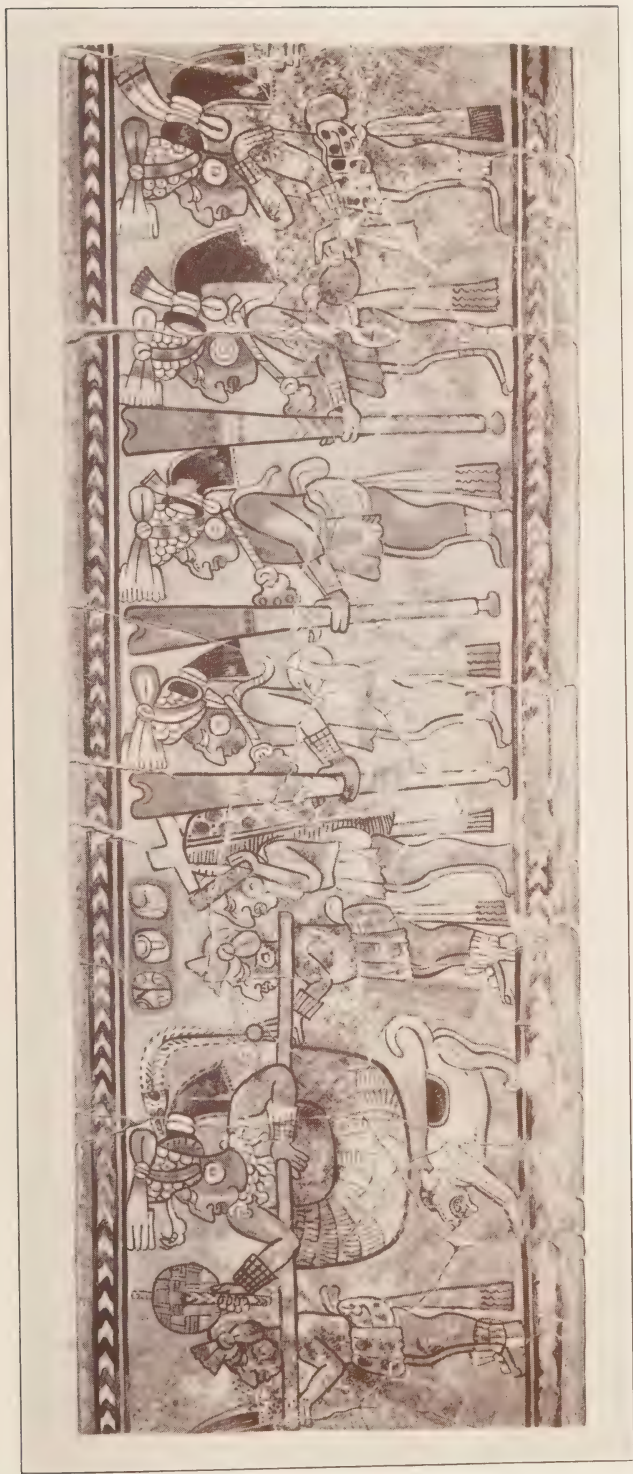
The vase shown on page 375, No. 12699, is of a slightly different character. It is divided into two equal parts by a horizontal medial band of hieroglyphs. On pottery vessels the hieroglyphs are chiefly used as a decorative motive and not with the intention of dating the vase. In the upper zone is shown a ceremony of some kind, the row of costumed figures, facing towards the left, holding in their hands ceremonial objects of uncertain nature and kneeling before vessels, probably of pottery, which presumably contained a sacrificial offering.

The extension of the decoration on another of these vessels, NA-11221, is shown on page 376. This is a scene of great interest. Three seated figures, probably priests or nobles, are shown facing a central object which presumably depicts a basket of offerings. The dress of the Maya, who, in their tropical climate, certainly wore a minimum of clothing, is shown to consist mainly of a breech-cloth, but the profusion of ornaments, especially as regards headdress, is well shown. The central hieroglyph doubtless states the character of the ceremony.

One of the most unusual and interesting of these vessels, NA-11701, is shown on page 378, and the extension of its surface on page 379. It represents a procession in which one of the grand nobles is carried in his palanquin or hammock by servants. In his hand he holds what is probably a fan made of basketwork, his headdress is as elaborate as usual, and his necklace is large and prominent. Under him walks his dog, growling menacingly; this is unusually well drawn and gives a good impression of the dogs possessed by the Maya. The black spot on the back is shown on almost all such drawings, but whether it represents a natural characteristic of the breed or not is uncertain. The retainers or servants are more simply attired. Two of them support the poles which bear the noble and another following close behind carries his master's baggage on his back with the aid of a band across his forehead. The next three are probably the great man's bodyguard, bearing staves or weapons, and the last man we may suppose to be his secretary or valet.



A Maya painted vase of unusual interest, representing a noble on a journey
Ratinlixúl, Guatemala



A Maya dignitary carried in his litter and attended by his bearers, porter, bodyguard, aide, and dog. From the decoration on a large painted cup
Ratinlixúl, Guatemala

A few words concerning Maya character and religion will fitly close our sketch of this nation. They were on the whole a peaceable people. Before Toltec times, illustrations of warfare and strife were few. The stelæ and other monuments, instead of portraying and perpetuating the glory and warlike deeds of mighty kings and individual personages, mark the regular passage of time and possibly record the major activities of the people of the city.

Religion, as among all earlier peoples, was of transcendent importance and permeated every phase of their life. They were, like the Greeks and Romans, polytheistic, with a few major gods and numerous minor ones, anthropomorphic animals such as the bat, jaguar, serpent, and quetzal bird being prominent among the latter. The priesthood was highly organized and potent, the priests and nobles having presumably been identical in earlier times. Ceremonial, magic, and ritual doubtless played the major part in their religion, and sacrifice was all-important. Sacrifice, however, was mainly of personal possessions; human sacrifice was probably unknown until Toltec times and never attained great prominence.

Such is a succinct and, we fear, too much condensed epitome of what we know about the Maya, the greatest of the native nations of America, a people worthy of much more study than has heretofore been accorded them. When American archæologists, patrons of science, and the people at large shall take as much interest in this strange, purely American nation as they do in the ancient peoples of Egypt, Babylonia, and Greece, our knowledge and our admiration of them will be by so much increased.

TWO MASKS FROM FRENCH EQUATORIAL AFRICA

BY H. U. HALL

THE masks figured here belong to a clearly defined West African type of which only a few examples are to be found in museums or in private collections. They were acquired recently by the UNIVERSITY MUSEUM, having formerly been included in a well-known private collection, now dispersed, in New York.

Of the seven other masks of this type known to me six are in European museums, and the seventh in the collection of the Barnes Foundation at Merion, Pennsylvania. In most of these cases the data concerning their places of origin are not very precise. Five of the masks appear in L. Frobenius's volume, *Die Masken und Geheimbunde Afrikas*,¹ as fig. 43, pl. II, fig. 39, pl. IV, and figs. 52, 53, and 54, pl. VI. More recently, Frobenius has published another, fig. 150 in *Das unbekannte Afrika*,² and the Barnes Foundation example appears as fig. 7 in *Primitive Negro Sculpture*, by Paul Guillaume and Thomas Munro.³ The first mask in this list is in the Historical Museum at Berne, where there were no data concerning its provenience. It is assigned to the Ogowe River by Frobenius on the strength of a comparison with figs. 52, 53, 54 (pl. VI) in his *Masken*. The second (fig. 39, pl. IV), from the State Museum of Ethnography at Leiden, is said in the legend at the foot of the plate to be from "Loango"; apparently this should, according to Museum data (p. 17), read "Quillu," i. e. Kwilu River, which is, roughly, the northern boundary of the old kingdom of Loango. The provenience of the remaining examples, according to the official data, is as follows: Ivili (University Museum, Oxford), Sette Kama (Free Public Museum, Liverpool), Ogowe (Museum of Ethnology, Hamburg), Loango-Ogowe (Visser Collection, Leipzig Museum of Ethnology), M'pongwe (Barnes Foundation).

Among all these locations only two provide the name of a tribe, viz., Ivili and Mpongwe. The former live at or near the confluence of the Ngunye with the main stream of the Ogowe and the latter

¹ Halle, 1898.

² Munich, 1923.

³ New York, 1926.

seventy or eighty miles away on the coast on each side of the Gaboon estuary. The attribution to the Mpongwe appears, like that of Frobenius to the Ogowe in the case of the first mask on the list, to be matter of inference; at any rate, the list of figures in *Primitive Negro Sculpture* is preceded by a note to the effect that the attributions are estimated by the senior author. Frobenius's last attribution, to Loango-Ogowe, is, from its vagueness, evidently, like his first, inferred from the resemblance of the mask in question to the remaining four, concerning whose places of origin we have what may be presumed to be first-hand information.

From this information, taking it simply as it stands, no mask of this type entering a museum without specific and reliable data could justifiably be labelled otherwise than by some such combination of geographical names as that used by Frobenius, marking the northern and southern limits of the region from which such masks have been known to come. If M. Guillaume's attribution is based on data supplied by the collector or the original owner of the mask, he has moved one boundary of this region a little further north, from the Ogowe to the Gaboon. It should have been noted before that Sette Kama is the name of a town on the coast about 150 miles to the south of the estuary of the Ogowe proper, and that the mouth of the Kwilu is some 200 miles south of Sette Kama. The latter place appears to have been named after a tribe who were settled as far north as the lower course of the Ogowe and Fernand Vaz rivers. Thus we have three tribes whose names have been connected with these masks—the Mpongwe, the Kama (Commi, Nkomi, etc.), and the Ivili. The territories of the first two of these groups are contiguous; they are both coast tribes and despisers of the bush tribes of the interior like the Ivili.

If we are to depend entirely on the data recorded above, we have not succeeded in establishing any very definite limits of the territory to which a mask of this type can be assigned. The coastal edge of the territory over which we have been wandering is itself rather discouragingly long, and the rivers Ogowe and Kwilu are both streams of considerable length, the former especially having a very extensive basin. From the above data these masks seem to have had a distribution practically coinciding with the southern two-thirds of the large French West African territory commonly known as the Gaboon, from a small river in the northwestern part of it, and with a considerable portion of southern French Congo as



Mask from the Ngunye, an affluent of the Ogowe River in French Equatorial Africa

well. As far as our masks are concerned, it is possible to locate them within a much narrower circle, although unfortunately, like so many other African masks which have been brought into the United States and Europe, we have no first-hand information about them whatever.

The two masks in question bear in relief in the middle of the forehead a lozenge-shaped group of nine closely set small prominences coloured red in contrast to the whitened facial portion of the masks, and this device is repeated on the temples. It represents the cicatrization or scar-tattooing which is so common a means of adornment of the person among West African peoples. Such designs are many and varied and they are applied both to the body and the face. The French explorer, P. B. DuChaillu, on his second journey, in 1864 and 1865, through French Equatorial Africa, crossed the River Ngunye, the principal southern tributary of the Ogowe, a short distance north of the second parallel of south latitude. Here he found, on both sides of the river, a tribe whom he calls the Apono. Their neighbours to the east were known to him as the Ishogo. Speaking of Apono fashions in personal adornment he says that "the women have for ornament tattooed scars on their forehead; very often these consist of nine rounded prominences similar in size to peas, and arranged in the form of a lozenge between their eyebrows, and they have similar raised marks on their cheeks."¹ At first sight, this would seem to fix the responsibility for the production of our two masks on the Apono (Bapuno). But later he observed among the Ishogo also that some of the women had raised pea-like marks like those of the Bapuno women between their eyebrows and on their cheeks. This fashion in cicatrization, then, seems to be the prevailing mode among the Bapuno women and to have been copied by some of the Ishogo women, and the masks, so far as the evidence of the scars is concerned, are either Ishogo or Bapuno masks and in any case represent women.

Is there any other "internal evidence" to be gathered from the masks, which will allow of a decision between these two claimants for authorship? Unfortunately, none which is decisive, but some which seems to tip the balance of probability in favour of the Ishogo. The other especially striking feature of both these masks is the coiffure, which, from what we know of the methods of hairdressing among the tribes of the Ogowe and Gaboon, we may assume to be

¹ *A Journey to Ashangoland*, N. Y., 1867, p. 255.

built up of hair, still rooted in the scalp or of shed hair preserved for the purpose, on a framework of cane or wood or on a pad made of cloth of palm fibre. Although most of the tribes of the region are given to some extravagance in this particular, the women's hairdressing of two groups especially made an impression on DuChaillu. These were the Ashira, whose country he crossed before reaching the Bapuno, and the eastern neighbours of the latter, the Ishogo, who, as we have seen, flattered the Bapuno in the most practical manner by copying their fashion in face decoration.

Now, observation of the coiffure represented in our two masks shows that it consists essentially of a central tower-like portion, not far from cylindrical in form, flanked by two flattish pads made up, like the central portion, of tightly braided locks or thrums combed out of the whole fleece, so to speak.

DuChaillu saw nothing like this among the Ashira or the Bapuno, but the towering hair structures of the Ishogo impressed him so strongly that he made a classification of the principal modes, which he illustrates by means of three sketches, entitled "Oblique Chignon," "Horizontal Chignon," and "Vertical Chignon." Like many another traveller, he points, with obliquely imbedded tongue, a satiric moral at the fashions of the civilized fair, the better to adorn an otherwise plain tale: "I had noticed how curious the headdresses of the women were, being so unlike the fashions I had seen among any of the tribes I had visited. Although these modes are sometimes very grotesque, they are not devoid of what English ladies, with their present fashions, might consider good taste: in short, they cultivate a remarkable sort of chignons. I have remarked three different ways of hairdressing as most prevalent among the Ishogo belles. The first is to train the hair into a tower-shaped mass elevated from eight to ten inches from the crown of the head; the hair from the forehead to the base of the tower and also that of the back part up to the ears being closely shaved off. In order to give shape to the tower, they make a framework, generally out of old pieces of grass-cloth, and fix the hair round it. Another mode is to wear the tower, with two round balls of hair, one on each side, above the ear.

"A third fashion is similar to the first, but the tower, instead of being perpendicular to the crown, is inclined obliquely from the back of the head. . . ."¹

¹ Op. cit., pp. 285-289.

It is the second mode described by DuChaillu which resembles in essentials the mode of our two masks. The two tufts of hair above the ears in his illustration of what he calls the "oblique chignon" are not braided into flaps or pads like those of the masks, and consequently the ridges which run down the middle of these flaps and those which mark them off from the main structure are wanting in the drawing, while the parting which there runs down the middle of the front of this structure is replaced in the masks by a vertical ridge like those of the lateral flaps, and like that which, doubled in the case of one mask, runs, like the similarly bounding ridge of the flaps on the same mask, along the base of the structure and behind the shaven zone at the top of the forehead, which is marked, on both masks, by a red stripe. The lateral pointed flaps of the masks are certainly intended to represent the results reached by plaiting two such bushy tufts as appear in the sketch which accompanies Du Chaillu's description; and if he did not observe such plaiting in the case of the women, he has a drawing of an Ishogo man, in which three such plaited triangles of hair, one at the back of his head and one over each ear, depend from the shaven crown.¹

Of the Ashango, eastern neighbours of the Ishogo, DuChaillu notes that they have the same headdress as the latter, but their modes in cicatrization are not described, and the fact that they shave off their eyebrows eliminates them as possible models for the two masks with which we are concerned.²

If these masks are not productions of the Ishogo—though the combination of similarity in headdress and identity in face markings with those reported from that tribe furnishes good ground for believing that they are—there need be no hesitation in assigning them either to that tribe or to their neighbours the Bapuno, the Apono of DuChaillu.

The portrait of "Yanaway, a Gabun Princess," in J. L. Wilson's *Western Africa*,³ shows a headdress which bears some resemblance to that of the masks. But no cicatrization pattern has been reported from the Mpongwe which resembles that represented here. The Mpongwe, like the other coastal peoples of this region, are believed to have come to the coast from the interior, the former indeed from the district now occupied by the Ishogo and Bapuno, and they may

¹ Illustration facing p. 289.

² P. 331.

³ New York, 1856. Facing p. 265.

have left a fashion in hairdressing behind them or borrowed and imported it without also importing a fashion in cicatrization to the coast.

It remains to account for the wide and apparently somewhat capricious distribution of these masks. The coastal peoples, especially the Mpongwe and the Nkomi or Kama, are keen traders and have always used the rivers to bring down to the coast the products, rubber, ivory, and, formerly, slaves, of the bush tribes. The last mentioned phase of this river-borne, coastward trade, in a comment on its direction made by DuChaillu, is important and suggestive in connection with the diffusion of these masks in a northwesterly and a southwesterly direction. The observation of DuChaillu suggests how the masks enumerated above, if masks of this type are an exclusive product of the region inhabited by the Ishogo and Bapuno, may have reached the coast at the widely separated points where they have come into the hands of European collectors. He says that the Ishogo who were sold by their kindred as slaves were taken by the traders down the Ngunye into the Ogowe and so reached the country between Cape Lopez and the Fernand Vaz, i. e., the coastal territory inhabited by the Nkomi, "while most of the Aponos sold reach the coast by way of Mayomba."

If by this is meant Mayomba or Mayumba town near the mouth of the Nyanga River, slaves sold there would not merely be on their way to the coast, but would already have reached it; if it is the territory of Mayombe, the back country of Loango, the northern boundary of that territory is the Chiloango River, the upper part of which approaches the upper Kwilu. The Apono slaves would travel by the Ngunye River, in the opposite direction, of course, from that taken by the dealers in Ishogo slaves, and would find themselves at the end of this part of the trail at no great distance from the headwaters of one branch of the Kwilu. Whichever Mayomba or Mayombe is meant, arrival at the Kwilu, in the former case by way of the coast, would be in the natural sequence of things for slaves carrying mementoes of their former home, or practising in a new country the arts they had learnt in the old. Thus we have accounted for the northern and southern limits of the reported distribution of masks of the type in question; drift along the coast from either extremity of the line is easily explained.

The masks of western Africa, from the upper Zambezi River to the lower Congo and northwards to the region with which we are

dealing, were used, as far as is known, chiefly, if not entirely, in connection with the ceremonies attendant upon death and with those which form the ritual portion of the activities of the secret societies which are so numerous and so active in this region. In both cases the masks form part of the paraphernalia of the dancers, or at least of the chief performers in these ceremonies, which generally include dancing. The three functions of masks indicated here overlap, or rather, probably in most cases coincide, since it is one of the functions of secret societies in negro Africa to take charge of the rites and ceremonies connected with death and burial, since also membership in those secret societies concerning which we have most information—information which is in the nature of things scanty and lacking in detail—involves a period of training and initiation which corresponds to a belief—at least among the uninitiated—in an entrance by death into the world of spirits and by resurrection into a new existence as a privileged member of society.

There is an extension northward of the zone in which these politico-religious organizations flourish through the Cameroons and Upper Guinea and into the Nigerian Sudan, and it is difficult if not impossible to determine the focus from which this important feature of West African culture has been disseminated. But it seems certain that the functions and rites of the associations of the Gaboon-Ogowe region relate them more nearly to those of the Lower Congo and Loango than to those of Upper Guinea. Notably the widespread Nkimba of the south has a near relation in the Ndembo of the Bateke who have carried their conquests and their trade from Stanley Pool on the Congo to the upper Ogowe; and who were already established in those parts in the sixteenth century. By a route further westward, the valley of the Ngunye, the Bavili of Loango reached the heart of the Ogowe region where a group of that stock, the Ivili, are established near the junction of the Ngunye and Ogowe rivers. They must have been the van of the advance northward from the maritime Congo region by this route, since the Bapuno whom we have seen on the middle Ngunye, well behind the Ivili, belong to the same linguistic group. We have thus two southern sources from which the secret societies of the Ogowe-Gaboon may have been directly influenced, if not inspired to their beginnings.

One of the most widespread of the secret societies of the Ogowe-Gaboon is known by a name which represents one form or another of the term Okukwe or Okuku which is applied to it on the coast.

According to the missionary R. H. Nassau, who spent many years in the Gaboon and Ogowe, Ukuku of the coastal country is the same society which is known on the Ogowe, near the confluence of that river and the Ngunye, by the Galwa (Galoa, Igalwa) negroes, as Yasi.¹ Another name is Isyoga, which recalls the tribal name Ishogo and reminds us that not only masks but the ideas of which masks are the symbols have been carried by slaves from the interior coastwards. Of another cult we are told that it has passed from the basin of the upper Ngunye by the agency of Issogho (Ishogo), Ashango, Apingi, and Eshira (Ashira) slaves into the lake region of the Galwa and thence throughout the Ogowe and into the Gaboon. In these facts we have an explanation of the general similarity in the practices of the secret societies, so far as we have accounts of these, throughout this region.

Okukwe or Ukuku has travelled even further than the farthest point named by Nassau. DuChaillu came across it, under the name, as he heard it, of Ocuya, among the Bapuno, who, he says, "are very fond of the *ocuya* performances. The *ocuya* is a man supporting a large framework resembling a giant, and whimsically dressed and ornamented, who walks and dances on stilts. In Mokaba he appears in a white mask with thick open lips disclosing the rows of teeth *minus* the middle incisors, according to the Apono fashion. The long garment reaches to the ground, covering the stilts. It struck me as a droll coincidence that his headdress resembled exactly a lady's bonnet, at least the resemblance held good before chignons" —DuChaillu's pet aversion—"came into vogue; it was surmounted by feathers and made of the skin of a monkey."² If we were tracing the use of stilts as a feature of these societies, here is a step southwards on the track that seems to lead back to the Mukish of Angola. In the north the stilts are used to simulate the gigantic stature of the "spirit" leader.

According to J. L. Wilson,³ who knew the coastal country more than seventy years ago, this association, which he calls Kuhkwi, was then "a sort of theatrical affair, intended more as a public amusement than anything else." In other words, it was even then in a state of decadence on the coast, but the few details which he gives, especially the emergence "from a queer-looking house built

¹ *Feichism in West Africa*, London, 1904, p. 151.

² *Ashangoland*, pp. 260, 261.

³ *Op. cit.*, pp. 397, 398.

chiefly of reeds and leaves" of the masked leader, who dances on stilts, and scares away the women and children, show that it was originally a serious association conforming to the pattern of such institutions in that region.

Another survival of its originally serious purpose is mentioned by Nassau,¹ who speaks of a dance "held in the Gaboon region . . . near the close of whatever prescribed time of mourning. It is called 'Ukukwe' (for the spirit), as if for the gratification of the hovering spirit of the dead." Whether or not Nassau's interpretation of the purpose of the dance is correct, we know that the conduct of ceremonies connected with death was an important function of these associations. Nassau, curiously enough, fails to connect this rite with the society he calls Ukuku. The dancing on stilts by a masked individual is another link with the south, where the Mukish (Mokisso, Nkissi of the maritime Congo and Loango) of Angola performs in the same manner.²

The society called Nda apparently superseded for serious purposes Ukukwe or Ukuku of the Mpongwe on the coast. Nda is also an order confined to men and strongly resembles Ukukwe, even in the detail of a masked dancer on stilts whose approach the women and children flee, and in being alleged to have for its chief object the disciplining of these two classes in the community and of the slaves.³ In reality, like other similar associations of the men in the Gaboon and Ogowe, this was, no doubt, only a part of its general political or civic activities. These were directed towards the maintenance of a respect for law and order in their communities, through sanctions which they made compelling by identifying themselves with some god or spirit after whom the society was named, and who appeared at intervals among the initiated. On such occasions all others were constrained at their peril to avoid the precincts of the shrine in which he for the time resided and to shun any public place in which he was expected to appear. Characteristically, again, Nda appears at the death of a person connected with the order, at the inauguration of officials, and at the birth of twins. The fuller accounts that we have of the southern orders reveal a similar interest in births of a kind regarded as extraordinary or prodigious, and this brings out

¹ Op. cit., p. 227.

² See the numerous illustrations assembled in Frobenius, *Die Masken*, from Cameron, Capello and Ivens, and M. Buchner.

³ R. F. Burton, *Two Trips to Gorilla Land and the Cataracts of the Congo*, London, 1876. Vol. I, p. 101. See also Wilson, pp. 395-396, and Frobenius, index, s. v. Nda.

once more the close relationship of the associations in the two regions and the importance for them of supervising and surrounding with magical or supernatural sanctions the principal crises of human life—birth, death, and the entrance into adult existence; the admission to the novitiate in a secret society took place usually at or about the age of puberty. The incidents of the novitiate itself resume symbolically, in typical cases, and consecrate with “rites of transition” these crises: the neophyte dies (falls into a swoon), is brought back to life (the new social life in which he is, when his novitiate is completed, to play his full part) in the seclusion of the “bush school,” and this rebirth is followed by a period of education—as if the novice were passing again through his childhood, learning to walk, to eat, to speak a new language. This language is intelligible only to adepts, and forms one of the secrets of these associations.

An important secret society of the region from which our masks are derived is the one described under the name of *Bouiti* by MM. Daney and Leroux.

Among the Itsogho (Ishogo), says M. Daney, Mouanga (Mwanga) is the high god. He is never represented in an image or other material embodiment. He is invisible, remote, only to be approached through Bouiti (Bwiti), his auxiliary, the spirit or god who presides over the secret society which bears his name. To approach and influence Bwiti one must be a member of this society. We have, unfortunately, few details of the course of events during the novitiate of a candidate for membership. The training involves the learning of a “sacred” language, which, in the Ishogo society, is said to be that of a pygmy tribe of this region mixed with the language of the Bapindji (Apingi). When his training is completed, the neophyte in his kilt of banana leaf fringe, with his body painted half white and half red, and wearing red parrot’s feathers in his hair, is made ready for initiation. He is given to drink a potion made from the macerated bark of a certain tree and he must also chew some of this bitter bark. This is said to produce a condition of hysterical excitement in which the novice beholds Bwiti, like a little man, flame-coloured, dancing and grimacing before him. According to M. Leroux, Bwiti appears when the novice is brought before his *bandja* or temple, and the apparition is not the result of hallucination but is an actual image of the god manipulated in the doorway of the temple in the red smoky light of torches; for these ceremonies take place at night. The leader of the society proclaims the “oracles

of the god," and the novice is challenged to say what objects are concealed at the back of the bandja; if his guess is correct this is the sign that Bwiti permits his entrance into the "sect." These objects are usually the "attributes of Bwiti," such things as antelopes' horns containing ashes of the dead, shells painted white and red, bells, drums, a stringed musical instrument called *ngombo*, etc. Presumably the candidate has been coached beforehand. He is now a "man," and takes part in the dancing and banquet which follow. The banqueters consume the meat of a sheep with bananas from a tree which has been planted, has grown, blossomed, and borne fruit, all during the night of the banquet.

The Bwiti dance is performed not only at these festivals of initiation but also in connection with funerary rites celebrated six months after a man's death. The bandja has a niche for the exposure of men's corpses; women's corpses are not exposed there and women are excluded from the society.¹

In the case of one, at least, of the southern societies, the "bush school" includes the youth of both sexes. Usually there is a rigid separation, and women's secret societies exist, although they are less numerous than men's, from the ceremonies and schools of which men are strictly excluded on penalties similar to those which bar women from those of the men's associations.

Corresponding to the Nda of the Mpongwe men, which, as we have seen, is entrusted with the responsibility of keeping in order the women and children and the uninitiated in general, is the Njembe of the women. "The ceremony of initiation requires several weeks, and girls at the age of ten or twelve years may be admitted if their parents will bear the expense of it. During the process of initiation all the women belonging to the order paint their bodies in the most fantastic colours. The face, arms, breast, and legs are covered over with red and white spots, sometimes arranged in circles and at other times in straight lines. They march in regular file from the village to the woods, where all their ceremonies are performed, accompanied by music on a crescent-formed drum. The party spend whole nights in the woods"—in some other societies this period occupies months and even years—" [and] a sort of vestal-fire is used in celebration of these ceremonies, which is never allowed to go out until they are all over.

¹ P. Daney, *Sur les croyances des indigènes de la subdivision de Sindara (Gabon, A. E. F.)*, *Revue Anthropologique*, 1924, pp. 278-280; Leroux, loc. cit. 1925, pp. 320-321.

"The Njembe make great pretensions, and, as a body, are really feared by the men. They pretend to detect thieves, to find out the secrets of their enemies, and in various ways they are useful to the community in which they live, or are, at least, so regarded by the people. The object of the institution originally, no doubt, was to protect the females from harsh treatment on the part of their husbands; and as their performances are always veiled in mystery, and they have acquired the reputation of performing wonders, the men are, no doubt, very much restrained by the fear and respect which they have for them as a body."¹

We are told by Nassau that in the tribes where Njembe exists women have much more freedom from men than elsewhere in this region. He tells a story of an attempt, made about twenty-five years before the date (1904) of the publication of his book on *Fetichism in West Africa*, by two Germans to witness in concealment a Njembe performance. The incident is a rather striking illustration of the power which this organization was able to exert even over white men in what was, even then, a comparatively civilized community. The two men, although they had Njembe wives, had tried in vain to find out what went on at Njembe ceremonies and so resolved to try to get close enough to watch a performance which was going on in a jungle near their trading-house one dark night. Their approach was detected before they had had time enough to observe anything of importance and they were chased away and recognized. The Njembe women laid a curse on the culprits and declared openly that they intended to poison them. They would have done so but for the intercession of the elder trader's wife on his behalf and afterwards of this trader himself, who was a popular person, on behalf of his junior. As it was, large fines had to be paid and the younger man's health was for a time seriously impaired by the operation of the Njembe curse—or poison.²

Both Wilson and Nassau say that Njembe has no special presiding spirit. Nassau adds that "when the society has occasion to investigate a theft or other crime, it invokes the usual *ilâgâ* and other spirits."³ These *ilâgâ* (*ilogo*, *inlâgâ*) are the same which Wilson classes with *abambo* (*ibambo*) as "the spirits of dead men . . . *Abambo* are the spirits of the ancestors of the people, and *Inlâgâ*

¹ Wilson, pp. 396–397.

² Nassau, pp. 261–263.

³ Nassau, p. 260.



Mask from the Ngunye, Gaboon region, West Africa



Profile of mask on preceding plate

are the spirits of strangers and have come from a distance. These are the spirits with which men are possessed, and there is no end to the ceremonies used to deliver them from their power."¹ Burton remarks on Wilson's distinction between *ibambo* and *ilâgâ* that "this was probably an individual tenet."² It is true that DuChaillu, who was everywhere along his route regarded as a spirit, was known as *ibamba* among the *Ishogo*,³ and he was certainly recognized as coming from a distance. On the other hand Wilson makes his statement not as an opinion but as if it were an ascertained fact. He was speaking of the tribes on and near the coast and, while there seems to be a great deal of similarity in the nomenclature of religion and magic among all these tribes, it is quite possible that the distinction referred to may hold good for the coast and not for the interior.

While Nassau and Wilson are explicit in the statement that there is no presiding genius peculiar to the *Njembe* society, Daney is equally explicit in the contrary sense. He says that men and women worship different "genii": "The former worship and pray to *Bouiti*, the women have their own genius whom they worship in their secret societies or *n'Djembe*, concerning which we have only vague information, since the adept is required to preserve secrecy under penalty of death." Obviously the difficulty which foreign men have in gaining information concerning men's secret societies is much increased when they attempt to inquire into the secrets of the women's. It is difficult to see how the prestige of *Njembe* could be great enough to offset that of the men's societies and effectively protect women's rights unless *Njembe* had a patron whose power was believed to be at least as compelling as that of *Nda* or *Bwiti*. Unquestionably the women's societies are modelled on those of the men; Burton even states that the *Njembe* of the coast was "dropped a few years ago by the men" and "taken up by their wives."⁴ Whether or not the last statement is literally true, it seems extremely unlikely that the women in forming their associations would omit the feature on which the similar societies of the men depended so largely for their effectiveness. Of the *Njembe* of the *Ishogo*, Daney was able further to ascertain only that the young novices were subjected to a series of very severe tests before initia-

¹ Wilson, p. 388.

² *Gorilla Land*, p. 101.

³ *Ashangoland*, p. 281.

⁴ *Op. cit.*, p. 81.

tion, that this initiation was followed by a dance held in the heart of the bush, and that the girls then received advice on various matters, particularly in relation to hygiene.¹

Since, so far as we know, the masks worn as a feature of the ritual of these men's societies represented men (sometimes animals), it is probable that the masks of the women's societies represented women; since our masks are feminine and the masks of this region appear all to be connected with the ritual of the secret societies, it seems another probable conclusion that our masks are Njembe masks; and, from what has gone before, that they are masks of the Apono or Ishogo—probably Ishogo—Njembe. Although in some cases in the south novices and also some previously admitted members of the society wear masks at the ceremonies, I know of no definite statement which attributes the wearing of masks in the Ogowe region to anyone except the leader who impersonates the spirits. The two masks figured here then are probably to be considered as leaders' masks representing some female deity presiding over Njembe groups.

The masks, as we have seen, are, or originally were, coloured white, so far as the general surface is concerned. White is in Africa, especially in West Africa, very generally associated with spirits, as it is with spooks among ourselves. This conception is almost universal, indeed, and has a rational basis in the facts on which a belief in spirits rests. Such apparitions commonly appear out of the mysterious dark, at night, and the illusory phenomena which give rise to the belief that a ghost has been seen must have a light colour in order to be seen at all. Again, so far as the conception of a separable soul or spirit rests on the exhalation of the breath, this when it becomes visible is so in the form of white vapour. Among the Bahuana of the southwestern Belgian Congo, one of the souls of a dead man appears at night only, being composed of a white misty substance. Uvengwa, says Nassau, in his account of the religious beliefs of the people of the Ogowe-Gaboon, is "the self-resurrected spirit and body of a dead human being. . . . It is white in colour." Daney relates that, at the Okukwe performances, the songs which accompany the dances usually contain insults or reproaches addressed to the women—who are nowadays spectators, though still kept at a distance from the performers—on the score of their light behaviour. Sometimes a legend is chanted, one, for example, which tells of the marriage of a girl with a ghost. Daney explains this as an allusion

¹ P. 273.

to the temporary unions of white men with native women. He justifies this explanation on the native belief that ghosts are white like Europeans, who, they declare, even smell like corpses! In this same region, both DuChaillu and Nassau—and their experience was similar to that of other white men in Africa—were commonly regarded as spirits. This was undoubtedly because of their complexion. “You are white people and are spirits; you come from Njambi’s town and know all about him,” said a native whom Nassau questioned about their high god. “White man’s land” was at the bottom of the sea, and to that land some negroes were fortunate enough to go after death, “exchanging a dusky skin for a white one.” A group of Bulu (Fang) women who once stood watching Milligan were heard to remark: “The spirit’s hands and face are white, but his feet are black, and I suppose the rest of his body is black.” DuChaillu frequently records being greeted or referred to as a spirit, on his journey from the coast to Ashangoland beyond the Ngunye.¹ The explanation does not seem to have occurred to him; indeed, travellers have often been at a loss to explain this attitude on the part of negroes except on the assumption that the latter were so impressed by the obvious superiority and beauty of whiteness that they believed that the possession of this physical character implied the possession of supernatural qualities. The real explanation is in fact much simpler, as we have seen.

The association of white men with ghosts (ancestral spirits) was strikingly illustrated for Pechuel-Loesche by an experience in Loango, which, incidentally, furnished him with the true meaning of the name, Mindele, by which white men were known. One evening, being tired, he lay down to rest in the hollow left by the caving in of a grave. Some movement that he made must have attracted the attention of someone in the bushes near by, for he heard a shriek followed by the noises of a hasty flight through the jungle. Next morning the local chief called on him and demanded satisfaction for his having, as the chief said, frightened some women to death. They had seen him rise out of a grave and taken him for a *ndeke* (*mundele*), i. e. for “a ghost, which, as such, appears with a white skin, like our spooks in white shrouds.” This, says Pechuel-

¹ H. H. Johnston, *George Grenfell and the Congo*, ii, p. 641, quoting Torday and Joyce in the *Journal of the Royal Anthropological Society*, XXXVI, p. 291; R. H. Nassau, *Fetichism in West Africa*, pp. 71, 37, 57; P. B. DuChaillu, *Ashangoland*, pp. 181, 281, and passim; Daney, loc. cit., pp. 277–278; R. H. Milligan, *The Fetich Folk of West Africa*, pp. 123–124.

Loesche, accounts for the name given to whites, although the natives have forgotten its real meaning.¹

This author believes that the whiteness of spirits and the consequent connection of white men with them in the mind of the negro is to be accounted for by a tradition which he found in Loango, and says is general in Bantu Africa, that these negroes had white men among their ancestors. This leaves the blondness of the ancestors to be accounted for, however, and this can be done either by assuming an ancient—yet not too ancient to have been forgotten in tradition—migration of white men into southern Africa, or by following the explanation outlined above, according to which the ancestors being in after times envisaged as spirits would be *ipso facto* white. In view of facts known, rather than conjectured, there cannot be much doubt as to which explanation is the more fundamental and the more general in its applicability in Africa. If it is objected that the legend reported by Pechuel-Loesche relates a fight between white and black ancestors and so requires an explanation that would account for different complexions among spirits, it may be answered that it is not contended that negroes are more consistent in the application of theory to myth than other people, or that all spirits are white in Africa. Bwiti, for example, is red or red and white.

The association between whiteness and the spirits of the departed is illustrated in a number of other ways. The occasions on which face or body were smeared with a white paste made of chalk or pipeclay are almost always, when any reason is assigned for the use of this paste, those on which the persons employing it come into close association with death and hence with spirits, or when they are themselves personifying, or assimilated to, spiritual beings, as in the case of initiation into, or other participation in the rites of, secret societies. In the region with which we are primarily concerned, or that part of it best known to Nassau, which included both the Gaboon proper and the Ogowe to its junction with the Ngunye, we are told by that writer that during the period of mourning the face is painted with ashes or clay, presumably pipeclay. Going further afield among the western Bantu, we learn that the Bangala women, when in mourning, cover the whole body with pipeclay and go naked. This is a custom also among the Bulu, a group of Fang of the Gaboon-Cam-

¹ *Volkskunde von Loango*, Stuttgart, 1907, pp. 183–184.

eroons border. Among the Baluba, after a burial, the gravediggers rub themselves all over with white ochre.¹

In West Africa, where secret societies flourish, circumcision, along with other ceremonies attending the attainment of puberty, is commonly a part of the initiation of youths into these societies. In connection with these ceremonies the painting of the face or body with a paste made of pipeclay is of common occurrence. Banskaka youths, after circumcision, dance at the puberty ceremonies having their bodies painted white. Among the Yaunde, a Fang tribe of the southern Cameroons, the candidates for initiation are secluded for from eight to ten days in a special house, during which time their bodies are painted with white clay. In the Cameroons, again, in the country which, like that of the Yaunde, borders upon the region which we are primarily considering, there is an institution known as Mukuku—the name recalls Ukuku, Ukukwe, Kuhkwi of the Gaboon-Ogowe—concerned with the initiation of boys between the ages of six and ten. They wander in the forest for a year under the supervision of a master; their naked bodies are painted with white clay. As in the Ogowe and the lower Congo under similar circumstances, these neophytes have a private language. Further north, in the Cameroons and Calabar, where we pass into Upper Guinea, whose numerous secret societies we have not space to discuss in this connection, the members of the famous Egbo society paint their bodies white. Of the Bane, neighbours of the Yaunde, we are told that the boys at the time of their initiation have their bodies painted white. They wear about their hips a kilt of the type worn by women, made of split banana leaves. This is the same garment which is worn by the neophytes of the Bwiti (M'bwiti) "sect" of Daney, whose bodies, he tells us, are painted half red and half white. A curious crinoline of the same or similar material, but held away from the hips by a hoop or framework on which the fringe is hung, is the typical costume of white-painted novices in the region of the lower Congo—another mark of the relationship which seems to unite all these associations in the West. From a footnote to page 101 of Burton's *Gorilla Land* (Vol. I) we learn that "Captain Boteler gives a sketch of the 'Fetiché dance, Cape Lopez' and an admirable description of Nda, who is mounted on stilts with a white mask, followed by negroes with chalked faces." This is the Nda of the Mpongwe to whom reference has previously been made;

¹ Nassau, *Fetichism*, p. 222; Johnston, op. cit., pp. 646, 655; Milligan, p. 155.

his mask and stilts connect him with Ukuku (Ukukwe) and with the Mukish of Angola south of the lower Congo. During the progress of the initiation ceremonies of the Njembe, to which girls of from ten to twelve years of age are admitted, the women of the society paint their faces, bodies, and limbs white and red.¹

Their death to the old world, reception into the world of spirits, bodily resurrection to a new life in which they share the duties and privileges of adult freemen of the tribe, is recorded unmistakably enough for the societies of the south, and it is plain that the painting of face or body with the white pigment is the symbol, or means, or both, of the assimilation of novices and adepts to the spirits whose company they join during initiation and other ceremonies of the society. It is also plain that West African spirits of the dead are often envisaged as white, as we have seen; that close association with those who have passed or are just passing, by way of death, into the world of these white spirits, makes it advisable to imitate their whiteness, presumably because one is less likely to be hurt by a spirit if one can put on spirituality, or at least its appearance, on occasions when contact with a disembodied spirit is most likely to take place; or because benefits that may be received from spirits are more likely to pass from one spirit to another by way of the natural sympathy that may be supposed to exist between two individuals in the same sphere or condition than from a spirit to an individual who is still in a condition merely corporeal; or for both reasons. The same reasons hold for the assumption of the white paint by members of secret societies, and their paint would act also as a symbol of their separation from and superiority to the "unspiritualized" uninitiated on whom they were to impose their will.

An ingenious method of intensifying the spiritual forces which were assumed with the coating of white paint was practised in the Ogowe-Gaboon. The Ashira and other tribes on the Ogowe and in Fernand Vaz kept the heads of relatives, severed from the bodies not long after death, in pipeclay. The clay mixed with the juices of decomposition was smeared on the person and served as a protection from danger. These skulls and the white powder to which they communicated the powers of the spirit of the deceased, had not merely a defensive influence but were also capable of conferring active benefits. Of these spirit-inhabited charms, Wilson explains the action as

¹ Frobenius, *Masken*, pp. 73, 74; pp. 80, 81, 85; H. Schurtz, *Altersklassen und Männerbünde*, p. 101; Daney, p. 279; Frobenius, p. 66.

follows: "The brain is supposed to be the seat of wisdom and the chalk absorbs this by being placed under the head during the process of decomposition. By applying this to the foreheads of the living, it is supposed they will imbibe the wisdom of the person whose brain has dripped upon the chalk." When the Nkomi, who are neighbours, on the coastward side, of the Ashira, were building a house for Du-Chaillu, this involved the removal of a *mondah*, or fetish of the nature just described, which contained the skulls of chimpanzees. "They flattered themselves," he says, "that it was this powerful fetish which brought me to settle on this spot. They have, in common with all the negroes of this part of Africa, a notion that there is some mysterious connection or affinity between the chimpanzee and the white man. It is owing, I believe, to the pale face of the chimpanzee, which has suggested the notion that we are descended from it as the negro has descended from the black-faced gorilla. I heard of other headmen of villages making *mondahs* with skulls of chimpanzees associated with skulls of their ancestors, believing that these would draw my heart to them and induce me to give them presents or trust them with goods." According to Daney, the spirits of the dead haunt their former dwelling places and remain associated with family life, which they assist, if the proper rites are performed in their honour by the survivors. The head of the deceased is preserved as the tutelary fetish of the family—it is these heads which are found in the *mondahs*—and girls at their initiation into the Njembe are sworn on these heads not to reveal the secrets of the society. The Fang use skulls in a similar way—not only the skulls of relatives, which we are told form part of "the fetish representing a protecting spirit belonging to a clan or tribe" but they employ also the skulls of chimpanzees, as the friends of DuChaillu did, and those of albinos as well.¹

The peculiar position of albinos among the negroes of West Africa, both in Upper and in Lower Guinea, is undoubtedly connected with the same belief in the pale colour of ghosts which led to the placing of white men in the class of spirits. In the last number of the JOURNAL, it was shown how dwarfs in West Africa, from being objects of a curiosity queerly mingled with awe rose in the world through diverse stages of superstitious esteem to a vantage point from which they actually scaled the negro Olympus. Albinos have, apparently, followed a similar path to the same goal.

¹ *Ashangoland*, p. 200, p. 35; Wilson, p. 394; Daney, p. 276; A. L. Bennett, *Ethnographical Notes on the Fang*, pp. 86, etc. Cf. Milligan, p. 236.

Albinos are to be found in almost every community in Southern Guinea, says Wilson; they were regarded as "somewhat sacred" and their persons were inviolable. They are not unlike other negroes, he says, except for their colour, which is almost pure white, their hair, which is cream-coloured, though of the usual texture, and their eyes, which are grey and weak. This appears to be a description of a type of albinism which is not far from complete.¹

In one part of Southern Guinea, at least, in the Gaboon, the superstitious feeling indicated had precisely the opposite effect. Albinos were believed to be bringers of ill luck and were generally killed at birth. In distant Unyoro, in East Africa, also they were held to be "unlucky." The same apparently contradictory issue of what must be a state of feeling identical with that entertained towards albinos in the rest of Guinea is reported from the north-western extremity of Upper Guinea. In Senegambia they were regarded as evil spirits and sorcerers, and were "preferably killed."² But, as we have seen in the case of dwarfs, which, with other monstrosities were sometimes exposed at birth, the two apparently incompatible attitudes could coëxist in the same community, being simply two phases of the same underlying emotional condition. As we shall see shortly, albinos were sometimes the victims specially selected for sacrifices. This result could easily issue from the same substratum of feeling about albinos, since human victims were simply messengers to the ancestors or gods and it was important to select envoys who were best suited for the purpose. Albinos, whose colour assimilated them to the spirits, would naturally be most acceptable to the spiritual beings to whose address they were despatched. We shall find that the despatching of the albino messenger-victim was sometimes intended to influence Europeans, who, as we have seen, were spirits and would naturally receive most willingly an envoy whose colour assimilated him to their own other-worldly and hence potent condition. It may be that the baldly reported putting away of albinos in the Gaboon and in Senegambia was really sacrificial in intention like the Nigerian instances.

In East African Uganda, not as in the neighbouring Unyoro, albinos were, so we are told, mere curiosities, maintained as such by great men and the king. To return to the West, which is more to our purpose, Bastian saw in the old kingdom of Kongo (of which

¹ *Western Africa*, pp. 311, 312.

² R. Andree, *Ethnographische Parallelen und Vergleiche*, pp. 240, 241.

Loango was an offshoot or province) an albino who was regarded as a "fetish" with power over Europeans—another instance of the significant association which we noticed above. He had the right to take any property he chose—so had the white-painted novices of some of the secret societies—and the owner felt himself honoured in his deprivation. In Loango albinos were regarded, as were dwarfs also, as the property of the king, were kept about his person, and were considered his "guardian spirits." With less precision an old writer speaks of the King of Loango's dwarfs and albinos as "prodigies" in the negroes' eyes.¹

In Southern Nigeria, at Brass and Duketown, albinos were sacrificed to the surf juju to bring European ships to the ports. At peace ceremonies at Abo an albino was killed. The Jekri chiefs went down to the mouth of their river in their war canoes and there threw into the water an albino boy and girl. The custom of sacrificing to the river deity a light-coloured negro girl, as at Bonny, or an albino, "was common to all the riverside tribes of the Niger Delta." It was the only way of appealing to these river gods. The sacrifice at Bonny was made "at the big water," i. e. "the equinoctial (September) tide."²

In Yorubaland, hunchbacks, albinos, lepers, dwarfs, and cripples are thought of as "unnatural beings, suffering the vengeance of the gods"; they are therefore considered the peculiar property of the king and of the gods, and reserved as priests and priestesses—to Obatala and other gods, the albinos, dwarfs, and hunchbacks being thought peculiarly suited for this vocation. Obatala "forms the child in the womb," so that albinism is his handiwork; or in other words he sends a spirit emissary among the people to punish them or to remind them of his power. Among the Fanti of the Gold Coast, albinos were sacred to an albino goddess, Aynfwa; at puberty they became her priests and priestesses, and, as mouthpieces of the goddess, their directions were unquestioningly obeyed, so that if they indicated anyone as a victim desired by Aynfwa, that individual was immediately offered up.

Perhaps it was by way of the priesthood that albinos were elevated to definite places in the West Coast Olympus. Spirits of the deceased were, at any rate, potential gods, if, indeed, it is neces-

¹ Andree, p. 240; Wilson, pp. 311, 312.

² H. Ling Roth, *Great Benin*, p. 19, footnote; C. N. de Cardi, *Juju Laws and Customs in the Niger Delta*, *Journal of the Royal Anthropological Institute*, XXIX, pp. 54, 55.

sary to draw a line of distinction, except to indicate rank or power, between such spirits and those which are sometimes named as actual deities.

This Aynfwa who spoke her decrees by the mouth of albino servitors was herself an albino and goddess of these pale-skinned Fanti. She was of human size and form and, curiously, covered with short white hair like that of a goat.¹ Did she somehow unite in her own person hircine with human nature? And are animal victims also to be conceived of as messengers, like the human—instead of as merely food for the divinity to whom they were despatched—so that they, too, might come to contribute something, at least, to the constitution of the divinity? Composite gods are by no means unknown in West Africa.

Thus, to return to the Ogowé-Gaboon country: Ombwiri (Mbwiri), a river deity, has the head of a white man and the body of a fish. On the coast he has his home in the sea and, according to Miss Kingsley, is there “an old white man, not flesh-colour white, but chalk white.” He is the deputy of the blameless but otiose Anyambi. *Mbwiri*, like some other words² used to designate “spirits” in general in this part of Africa, sometimes has a local appellation attached to it, by which to identify a chief spirit of some neighbourhood; sometimes, as above, is *the* spirit par excellence. In this character, he is the head of a local “sect” or secret society. Nzame of the Fang, who are newcomers to this region—evidently, so far as his name is concerned, the equivalent of the high, but indifferent, god Anyambi or Nzambi—was formerly conceived as black; contact with Europeans, whose whiteness convicts them of spirituality, has inclined the Fang to whiten him. Perhaps a similar influence has led the Zulu of southeastern Africa to a compromise: their Athlanga is half black, half white.³

The dwarfish god of the surf at Cape Coast, Abrokhu, was ashen in colour. His dwarfishness and his colour recall the white Baronga godlings of Southeastern Africa, who also illustrate once again the connection between whiteness, the spirit world, and white men: the

¹ A. B. Ellis, *The Tshi-Speaking Peoples*, pp. 48–49; M. H. Kingsley, *Travels in West Africa*, London, 1904, p. 364.

² Cf. Bouiti (Mbwiti, Bwiti), who dances on stilts and is covered with a white cloth. See Daney, and *Ashangoland*, pp. 313, 314. The Bwiti of the Ishogo is also a deputy of Mwanga, the indifferent chief god. Daney, p. 272.

³ M. H. Kingsley, pp. 167–168; Daney, p. 275; Du Chaillu, pp. 106, 107, 101–102; Andrew Lang, *Man*, 1905, No. 31; Bastian, *Die Verbleibs-Orte der abgeschiedenen Seele*, Berlin, 1893, p. 57.

Baronga gave them the same name which they gave to Europeans. The Baronga godlings fell from the sky in great rains. There is a connection here between water, white men or albinos, and white gods, which we have seen illustrated in both Upper and Lower Guinea. The series, whether the relation between its terms is or is not accidental, also includes dwarf gods, as we see.¹

A. E. Crawley in his discussion of masks and their uses observes that "the protégé of a guardian spirit wears a mask when dancing to represent that spirit and identify himself with it." He believes, however, that "the ideas of assimilation, whether magical or religious, of terrorism, of protection, and even of disguise are secondary, and that the primary meaning of the mask is dramatic; the mask is a concrete result of the imitative instinct."² The identification of oneself with, i. e., assimilation to, the personality, whether supernatural or not, represented by a mask is surely inseparable from the wearing of a mask, which is unquestionably "a concrete result of the imitative instinct": the first wearer of a mask was certainly disguising himself as somebody else and could not avoid, even if merely in play, a momentary assimilation of himself, in feeling, to the personality mimicked. This notion of assimilation is, I should say, fundamental to all mask-wearing; and the protégé of a guardian spirit, identifying himself with it by means of a mask, is in true line of descent from the earliest masker. Of the other purposes of masking enumerated, it is no doubt true that they "have no necessary development from one another but are natural applications to particular purposes of the original mimetic instinct."

The desire for assimilation to the spirits which appears to underlie the whitening of face and body by these Guinea negroes and others is evidently also the reason for the wearing of masks by the leaders and other members of the secret societies: they are, as we have seen, spirits at least for the space of time occupied by the novitiate, the initiation, and the performances. The frequent whitening of their persons and the association of whiteness with spirituality or godhead, in the numerous instances cited, makes clear the reason for the frequent whitening of masks, both in the region with which we are here chiefly concerned, and in other regions where similar practices are followed, notably in the southern Congo and Angola. All the masks of the same type as those figured here appear

¹ Cf. MUSEUM JOURNAL, Sept., 1927.

² Article *Masks* in Hastings' *Encyclopædia of Religion and Ethics*.

from the photographs and drawings in which they are represented to be painted white, with one exception,¹ and the narrow curved slit between the eyelids of our examples is evidently intended to represent the closing of the eyes in death, the event which turns one into a spirit.

The red colour which has been given to the lips and to the cicatrizations and the red band across the top of the forehead are probably also symbolical, not merely ornamental. For red too is associated with spirits. In this same region, after a funeral, a mixture containing powdered redwood is rubbed on the cheeks of the people and on the walls of the houses to keep off evil spirits. Bouiti's image is painted half red, half white. In northern Congo-land sorcerers and exorcists, who consort familiarly with spirits, paint their bodies red and their faces white. Among the Bayaka a man killed in battle may send his soul to take vengeance on his slayer. The latter may escape retribution by wearing red feathers in his hair and painting his forehead red. The same people paint corpses red; and the mourning colour of Bayaka women is also red. The official witchfinder of the northern Baluba paints his body with white ochre and wears a tuft of red feathers on his head.²

The symbolic meaning of red in this connection is not clear. Miss Kingsley has a statement which explicitly connects it with the propitiation of spirits: "Among the Fan I found the most frequent charm-case was in the shape of a little sausage, made very neatly of pineapple fibre, the contents being the residence of the spirit or power, and the outside coloured red to flatter and please him—for spirits always like red because it is like blood." According to Daney, white, among the Ishogo, is the symbol of good, and red of evil; and Bwiti appears to the novice in the form of a little man "of the colour of fire."³

Frobenius propounded the theory of the assimilation to spirits of the members of West African secret societies and cited the use of masks and especially of masks painted white to implement or symbolize this assimilation. Karutz criticized this theory as not being supported by the evidence. Unfortunately the strongest evidence, of the class which is brought forward here, is rendered rather nugatory by the former writer, who, while he saw the importance of the

¹ Frobenius, Plate IV, Fig. 39.

² Nassau, *Fetichism*, p. 219; Daney, p. 277; Johnston, pp. 663, 664; p. 653; p. 661.

³ *Travels in West Africa*, p. 302; Daney, pp. 278, 279.

whitening of masks and of the person in relation to his theory, was led astray by his prepossession in favour of an explanation referring this use of white to sun-worship—white symbolizing the sun—a position which in fact he does fail to support.¹

Our whitened masks, then, represent, in all probability, a spirit impersonated by the leader of a women's secret society of the Ishogo or the Bapuno at their esoteric rites of initiation, etc., which society either was, or was akin to, that Njembe which we have learnt was a favourite cult of the Gaboon-Ogowe region. The masks are masterpieces of African wood sculpture, almost unique for the delicate modelling, for instance, of the region of the eyes and the very faint malar prominences. The face is an almost perfect oval, in the literal sense of the word, rounded above and pointed below; the rather pointed half-oval of the headdress repeats and balances the lower half of the face portion of the mask; and the flange which surrounds the face and forms a support for the fringe of split leaves which are commonly worn with masks in Africa provides a make-weight for the towering headdress which would otherwise render the whole composition topheavy. This device is better carried out in the broader of the two masks, which is in other respects also the more symmetrically executed.

The vertical ridge which halves the central portion of the headdress carries upwards the strong line formed by forehead cicatrization, nose, and lips; the delicately pencilled eyebrows repeat the narrow curved slit of the eyes, and this soaring rhythm culminates above in the ridges which mark the upper outline of the side flaps of the headdress—the rhythm is varied somewhat in the setting at a steeper angle of these ridges, doubled, in the slenderer of the two masks. The forehead cicatrization, set closely between the eyebrows, repeats with its upper half and emphasizes the dome of the forehead, and, for the rest, fills interestingly the angle between the inner curves of the eyebrows. The red colour is applied with taste and skill to the outlying saliences of contour of the most interesting part of the composition, the face, emphasizing its ovalness, the blotch of red in the forehead space giving weight to this portion and bringing out the essential grace of the form of the whole, with its gently, not too fully rounded summit gradually reached from the slim taper of the chin.

¹ Frobenius, in *Verhandlungen der Lübecker Naturforscherversammlung*, 1895, and in *Die Masken*, etc., pp. 199–200; Karutz, *Zur westafrikanischen Maskenkunde*, *Globus*, LXXIX (1901), p. 363.

The suavity of the modelling and the sophistication of conception of the whole design, though not really exotic to Africa, make of these masks a good starting point for the sympathetic observation of examples of negro art by those who might be inclined to view with less sympathy the commonly more direct and stronger effects of the same kind which are often reached by the negro sculptor through a perhaps less polished employment of exactly similar methods.



Workmen ready to begin excavations at Beisan

THE EXPEDITION AT BEISAN

BY ALAN ROWE

THE excavations which have been conducted annually since 1921 at Beisan, the biblical Beth-shan, by the Museum of the University of Pennsylvania, were commenced this year on the 25th of August, and will continue until the rainy season begins early in January. My staff consists of Mr. H. J. Hine, Chief Archæological Assistant, Mrs. Alan Rowe, Assistant, Miss D. Boulton, Artist, Mr. C. Haiat, Secretary, Ahmed Effendi Abdel Aziz and Nicola Effendi Manasseh, Surveyors, Ahmed Effendi Osman, Draughtsman, and Fadil Effendi Saba, Photographer.

The work has hitherto been confined to Tell el-Hosn, or the Mound of the Fortress, in which at least eight main levels have been identified, ranging in date from just before the time of Amenophis III to early Arabic times, a period of over thirty-three centuries. This season's excavations have been carried out in all the levels, namely (1) Pre-Amenophis III, lower and upper strata; (2) Amenophis III, two strata (1411-1375 B.C.); (3) Seti I, two strata (1313-1292 B.C.); (4) Rameses II (1292-1225 B.C.); (5) Late-Ramesside, Philistine, Israelite, Assyrian, Scythian, New Babylonian, Old Persian, etc. (1224-302 B.C.); (6) Hellenistic, Jewish, Roman (301 B.C.-329 A.D.); (7) Byzantine (330 A.D.-636 A.D.); and (8) Arabic, Crusader, etc. (636 A.D.-XIXth century). The base of the upper stratum of the Pre-Amenophis III level at the south of the tell is about 37 feet below the top of the Arabic or latest level, and in order to give some idea of the extent of the walls, debris, etc., yet to be removed, it may be mentioned that the original height of the mound, at the south, was 134 feet, and at the north, 213 feet. The base of the mound itself, from northeast to southwest, is about 900 feet in length. The top of the Arabic level was 346 feet below the level of the Mediterranean Sea.

In addition to two new temples, which bring the number of Canaanite temples found on the tell up to six, our present excavations have yielded some objects of great importance, which include a door-jamb showing the portrait of the actual builder of the temple of Dagon referred to in I *Chronicles*, x, 10; bricks bearing the impressions of the feet of a child, a dog and a gazelle, and a pot handle



A sloping street of the Byzantine Period

inscribed with archaic Mediterranean linear signs. I shall describe the finds in chronological order, commencing with the oldest level.

PRE-AMENOPHIS III LOWER AND UPPER LEVELS

Although we have not yet actually identified these two levels, we are certain that they belong to the period immediately preceding Amenophis III (1411-1375 B.C.), as they are just under the level corresponding to his period. What we term the upper Pre-Amenophis III level was cleared in 1926, but not much was found in it. Some most interesting objects, however, have just come from the provisionally named lower Pre-Amenophis III level, among which must be mentioned a large four-handled pottery bowl, two feet in height and two feet in diameter; a great quantity of beautifully decorated pottery, mostly Eastern Mediterranean in origin; a part of a pottery cylindrical cult object with triangular holes; a scarab bearing the inscription "The god Amen causes (one) to live;" a painted pottery lion's head from a vase or cult object; a small pottery model of an offering stand; a model of the *Peshesh-kef* implement used by the Egyptians in connection with their "Ceremony of Opening the Mouth" of the mummy in the tomb; and two amulets in the shape of the "Buckle of Isis," which, according to Chapter CLVI of the Theban Recension of the Book of the Dead, was supposed to afford the protection of the goddess to the possessor.

DATE PALM TRUNK

In the debris near a stone threshold in the southern part of the same level, there was found a portion of the trunk of a date palm, very much blackened by decay. This trunk has a great interest for us, as it surely indicates that there were palm trees in Beisan so far back as 3400 years ago. At the present time there are practically none. According to early writers there were plenty of these trees in Beisan in the Byzantine and Early Arabic periods. For instance, Sozomen, the historian, states that in Byzantine times there were a great number of palms in Beisan, from the leaves of which the monks made baskets. The Arab writer Tirmidhi, who died in 892 A.D., writes: "Give me information of the palms of Beisan which is between the Jordan and Palestine. Are their dates not the most tasty?" Mukaddasi (Xth Century) says that from Beisan came both indigo and dates. The Russian abbot, Daniel, who visited Beisan in 1106 A.D., writes that "thick groves of date trees grow in the town."



General view of the excavations, Period of Seti I, 1313-1292 B.C.

Palms were practically no longer to be seen in Beisan in the XIIIth century, for when Yakut, the Arab geographer, visited the place, he wrote: "I, who have been there many times, never saw more than two palm trees there, and those of the kind that gives dates one year and no more." The German explorer Seetzen, who visited Beisan in 1806, records the finding of only one date palm, "and that is wild and with a short trunk."



Impression of scarab with cartouche of Thothmes III. 1501-1447 B.C.

TWO NEW CANAANITE TEMPLES

At the extreme northern end of the area excavated in the mound, in the lower Pre-Amenophis III level, we are now engaged in excavating two newly discovered Canaanite temples, a northern and a southern. The excavation of these temples is progressing very favourably and many important details throwing new light upon Canaanite sanctuaries of the beginning of the XVth century B.C. and, incidentally, upon certain passages in the Old Testament, have come to hand.

From various indications it would appear to be almost certain that the temples belong to the reign of Thothmes III, 1501-1447 B.C., who died thirty-six years before Amenophis III, the builder of the Canaanite temple in No. VII city level, came to the throne. A



Altar in the Southern Temple of Thothmes III level, with cult objects, lamps, bronze implements, and jewellery found in the immediate vicinity. 1501-1447 B.C.

scarab showing the figure of a bull and giving the name of Thothmes III has actually been found on the floor level of a room just to the west of the southern temple.

SOUTHERN TEMPLE OF THOTHMES III

The whole of the southern temple, with the exception of strips along the eastern and western parts, having been cleared, we are at



Decorated vase from Canaanite Temple.
Early XV Century B.C.

present in a position to obtain a general idea of its appearance. We had formerly thought that the axis of the temple ran from west to east, but we now see that, like the axes of the temples of Amenophis III and Seti I, it runs from south to north, or, in other words, the door of the inner sanctuary of the temple is at the south end of the building and the inner altars are towards its north end.

So far as can be ascertained at present, the temple consists of: (1) An inner sanctuary with two altars, (2) a room with the altar

of sacrifice, which is situated to the south of the sanctuary, (3) a corridor to the south of the sacrificial room, the significance of which is not yet clear, (4) a large courtyard to the west of the sanctuary and the sacrificial room, with a small anteroom at its northern end, and with a room which we believe to be a small stable for the sacrificial animal, and the socket of the pole for dressing the carcass, at its eastern end, (5) a room to the north of the sanctuary, (6) a corri-



Pottery figurine of the goddess Ashtoreth.
Pre-Amenophis III Period. Prior to 1400 B.C.

dor to the north of the anteroom of the courtyard leading to the northern temple of Thothmes III, and (7) a room to the west of the latter corridor. The more important of these rooms can be seen quite clearly on the photograph of the southern temple shown on page 421, which gives a good idea of their relations to one another. The length over all of the temple from south to north is 117 feet. What the west-east distance is, we, of course, do not know at present, but the excavated width is 58 feet.

THE INNER SANCTUARY

The inner sanctuary, divided into two compartments by a central brick altar and a short wall connecting the altar with the west wall of the sanctuary, has an interior measurement from south to north of 46 feet. Leading up to the altar, and on its south side, is a flight of three steps, while on a small wall at the right of the steps is a shallow stone basin which may have held blood offerings for the deity. It seems fairly obvious that the altar, which is 22 inches in height, was used chiefly as a table for the various sacred objects, jewellery, beads, etc., which were found lying on the ground around it. The finest object is a libation cup on a pedestal base; this cup, which has a hole in its base, is decorated with dark purple-red designs on a red background, and is a little over ten inches in height. Near the cup was lying a two-handled cylindrical cult object, open at the base and top, and over 18 inches in height. On the floor east of the altar was discovered a well made figurine of the goddess Ashtoreth, with the head missing. Dotted incisions on the front of the figurine may represent a garment or perhaps tattooings of a ritual character. The arms of the goddess almost encircle her breasts, while her body has a very slight inclination to the right, which gives a suggestion of animation to the figurine. Near the altar were also found a beautiful ivory cosmetic pot with a stand base; beads, ornaments, amulets, etc.; and the shoulder blade of a young bull. This last object is most important as it forms part of an animal sacrifice made in the temple, to which we shall refer later on. A dagger with a curved end which is very much like that worn by a king represented on a gateway in the Hittite capital of Boghazkeui in Anatolia, a gold covered figurine of a god, a lapis lazuli scarab of Sesostris I, and an ivory plaque representing a seated man were also found near the altar.

In front of the brick altar and within the sanctuary is another altar, some 12 inches in height, which is made out of two pieces of stone. Upon this stone altar were probably laid the cooked meat sacrifices which were offered up to the deity. So far as can be seen at present the only entrance to the sanctuary is the door at its southwestern corner, near the altar of sacrifice.



Bronze sacrificial dagger. Thothmes III Period. 1501-1447 B.C.

From the southern side of the sanctuary came part of a clay brick bearing a curved line impression, evidently the maker's mark, and two fragments of an Egyptian green glazed faience bowl. One of these fragments has the legs and part of the garment of a man painted on it, while the other bears a few hieroglyphic signs, the meaning of which is not clear as they form only parts of words. A determinative, showing a seated god, however, indicates that the name of some god is mentioned. After the determinative is written



Ivory plaque of squatting figure with elongated head and prognathous features. Lower Pre-Amenophis III level.
Prior to 1400 B.C.

the word *ba* . . . At the time of writing we have just discovered some pedestals of brick upon the northern wall of the sanctuary.

This sanctuary of the great southern temple of Thothmes III is but an earlier type of the sanctuaries of Amenophis III and Seti I in the upper levels. The later sanctuaries, however, had the northern altar erected in a room raised above the level of the room in which the southern altar was placed, and also had a small *mastaba*, or seat, running partly round the lower room. Furthermore, in the lower room itself were two columns for a roof, but no traces of any columns have so far been discovered in the Thothmes III sanctuary. The two temples of the time of Rameses II at Beisan were erected



View of western side of southern temple of Thothmes III looking west, showing the sacrificial altar on the left.
1501-1447 B.C.



Sacrificial altar in southern temple of Thothmes III level. The bull shows how the victims must have been tethered.
1501-1447 B.C.

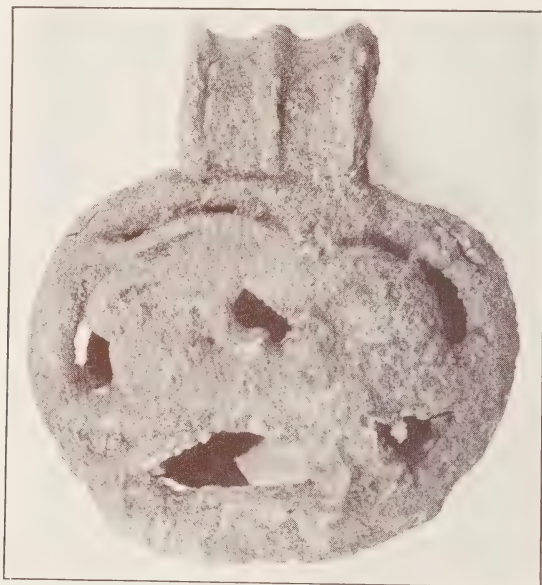
in a style altogether different from that of the older temples mentioned above and cannot be said to have evolved from them.

ROOM WITH ALTAR OF SACRIFICE

The room with the altar of sacrifice, as has already been observed, is just to the south of the inner sanctuary, from which it is divided by a thick wall. The sacrificial altar is built against the west end of this wall and has two steps leading up to it from the entrance passage of the sanctuary. On top of the lower step is a rectangular slab of basalt, but whether this came from above the altar or is in its original position cannot be determined. The altar itself is of brick and is about 12 inches in height. In the top of it is a channel, 8 inches in width and 8 inches in depth, in which the blood from the sacrificed animals was carried away to an outlet at the east of the altar, where the fluid was caught by some kind of receptacle, doubtless a pottery vessel. In the southern side of the longer part of the channel, which is L-shaped in plan, we discovered a round hole sunk in a sloping position for a little distance under the altar. From this hole came some small pieces of wood. It seems quite certain that in this hole was inserted a wooden peg for the purpose of holding a rope for tethering the animal to be sacrificed. Against the south side of the altar we found two horns of a bull that had been slaughtered upon the altar. A collarbone of a bull, together with a sacrificial dagger of bronze with its handle inlaid with wood, was lying in the courtyard to the west of the altar steps. Doubtless this collarbone and the shoulder blade found in the inner sanctuary, as well as the horns, belonged to one and the same animal, which was probably the last to be sacrificed in the temple. The bull, as shown by the skeletal remains, was about three years old, and in this respect we are reminded of the bullock of three years that was offered up by Hannah in the "house of the Lord" in Shiloh. See I *Samuel*, i, 24, 25, R. V., margin. Near the place in the courtyard where the dagger and the shoulder blade were found is a long, hard, clay socket sunk in the floor. From this socket came some small pieces of wood and a semi-circular piece of plaster, proving that a pole was once placed in the socket. There can be no doubt whatever that the carcase of the bull was dressed upon this pole after the animal had been sacrificed upon the altar close by. In some of the Egyptian funerary documents, as for instance in the Papyrus of Anhai in the British Museum, we see the carcase of a bull suspended from a pole inside a shrine containing

the god Osiris. Here the head of the bull hangs downwards and blood pours from the neck of the animal into a pot at the base of the pole.

Very near the pole in the courtyard of our temple was lying a heavy bronze pendant with a suspension loop at its top. This object is about 5 inches in height and 4½ inches in breadth. On its front is depicted a lion seizing an animal, probably a bull. This pendant must undoubtedly have been suspended from the neck of some large animal, which, we must conclude, was none other than the bull which was offered up from time to time as a sacrifice in the temple.



Bronze pendant for sacred animal. The design shows a lion leaping on its prey. Thothmes III Period. 1501-1447 B.C.

Perhaps the bull had decorations other than this pendant, all of which were placed on the animal on the day of the sacrifice, when it may well have been paraded within the precincts of the temple so that the laity might see it. A small room to the west of the sacrificial altar may have been a stable for the bull.

In the west end of this room is a square pedestal of brick which may either have supported a post for a roofing beam or have been used as a stand for some sacred object. A little to the east of the altar is a kind of shallow socket made of clay, the purpose of which was evidently to support the base of a large pottery jar which we found in the room. A fragment of plaster showing traces of blue

paint seems to indicate that some of the walls or floors of the temple were coloured. The upper altar room of the temple of Seti I was coloured a bright blue. A pottery libation cup was another important object that came from this room; also a bowl supported by four curved legs attached to a circular stand or base. This bowl, which has decorations in red and black, is quite unique.

Some of the details of this temple are not unlike those of the temple described by the Prophet Ezekiel (VIth Century B.C.). Cf.



Vessel from the room of the altar of sacrifice in the Southern Temple of Thothmes III. 1501-1447 B.C.

Ezekiel, xl. The latter building had its altars of sacrifice outside the inner sanctuary and also an altar inside the sanctuary. Indeed, we must assume that there was not a great difference between Israelitish temples of the type referred to in *Ezekiel* and the temples of the non-Israelitish inhabitants of Palestine, both in the VIth century B.C. and in earlier times.

SOUTHERN CORRIDOR OF TEMPLE

The exact purpose of the southern corridor of the temple will not be known until we have made further excavations along the

uncleared strips at the east and west ends of the temple area. So far, no doorway has been found in the corridor. Over a hundred cigar shaped objects of mud, each $3\frac{1}{2}$ inches in length, were unearthed in this place. These are evidently votive offerings and doubtless represent small rolls of bread or cakes. Compare *Jeremiah*, vii, 17, 18: "Seest thou not what they do in the cities of Judah and in the streets of Jerusalem? The children gather wood, and the fathers kindle the fire, and the women knead their dough, to make cakes to the queen of heaven [*i. e.*, Ashtoreth], and to pour out drink offerings unto other



Pottery votive offering bearing fourteen impressions reading "daily offering." Seti I. 1313-1292 B.C.

gods." Two round balls of clay, evidently representing another kind of cake, were found this season near the temple area of the Seti I level. One of the balls had a seal impressed upon it in fourteen places, while the other bore five similar seal impressions. The seal contained the Egyptian word *imenyt*, "daily offering," which indicates that the clay cake was a votive offering for providing a daily supply of bread for the deity. This usage has a suggestive analogy to the practice of preparing the shewbread at the sanctuary of Nob, as recorded in I *Samuel*, xxi, 6, which custom prevailed in Israel not so long after the Canaanite-Egyptian usage of the time of Seti I at Beisan. The daily preparation of the bread in the Seti I instance

may well throw considerable light on the periodicity of the renewal of the bread as referred to in I *Samuel*, where the frequency of renewal is left entirely undetermined.

COURTYARD WEST OF INNER SANCTUARY

The western limits of the courtyard west of the inner sanctuary not having been cleared, we do not yet know its exact shape. It has, however, a door at its north end opening into an anteroom which is connected with a small corridor leading to the northern temple. The courtyard possesses also an entrance in its east wall leading to the door of the inner sanctuary of the southern temple. In about the center of the courtyard, and in rough alignment from south to north, are two rectangular tablelike structures of brick, with a small square pedestal of brick between them. Upon the two tables, no doubt, were placed those cooked portions of the sacrificed bull which were not offered up to the deity in the inner sanctuary. We may suppose that these portions were eaten in the courtyard by the laity and that the portions for the deity were eaten in the sanctuary by the priests. (Cf. I *Samuel*, ii, 14, 15, and I *Samuel*, i, 18, in the LXX. See Driver, *Books of Samuel*, p. 15.) An actual cooking-place in the courtyard has not yet been found. We noticed a quantity of blackened wood fragments near the pole socket, but these may have been part of the pole itself. The small pedestal between the tables doubtless held the implements with which the flesh was divided. Cf. *Ezekiel*, xl, 42.

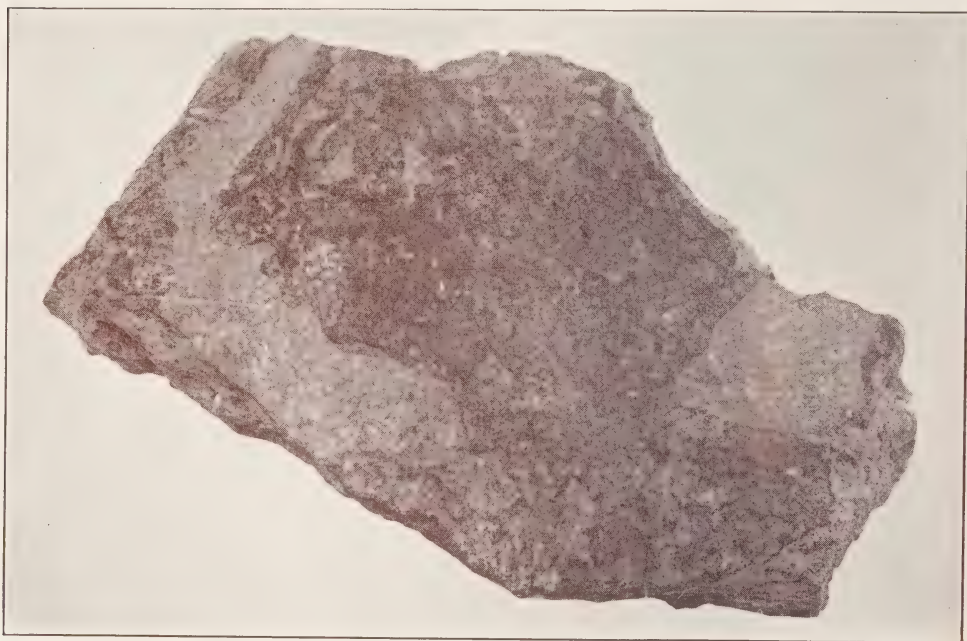
ROOM NORTH OF SANCTUARY

The exact significance of the room to the north of the sanctuary will not be clear until more debris is removed from its eastern end. Except pottery models of a bowl and pot, and basalt weights, nothing much of interest was found in the room.

ANTEROOM, CORRIDOR, AND ROOM WEST OF CORRIDOR

From the anteroom of the courtyard and the corridor to the north of it, came a rosette of gold foil, beads, amulets, and part of the base and foot of an alabaster statuette of a king or god. In a room to the west of the corridor, which is as yet only partially cleared, we have discovered part of a pottery bowl, of a creamish coloured ware, with the figure of a serpent in high relief on its exterior. This bowl, which is the oldest example of a cult object with a serpent

on it yet found in Beisan, is of great importance as it shows that ophiolatry, so prevalent in the town during the reigns of Amenophis III, Seti I, and Rameses II, was already practised there in the time of Thothmes III. In the same room were the scarab of Thothmes III previously referred to and a number of other interesting objects some of which are illustrated here. These include fragments of a magnificently painted jar with decorations in dark red and black. On one of the fragments is represented the head of a man with a bearded face, evidently a Canaanite, and on another fragment the head of



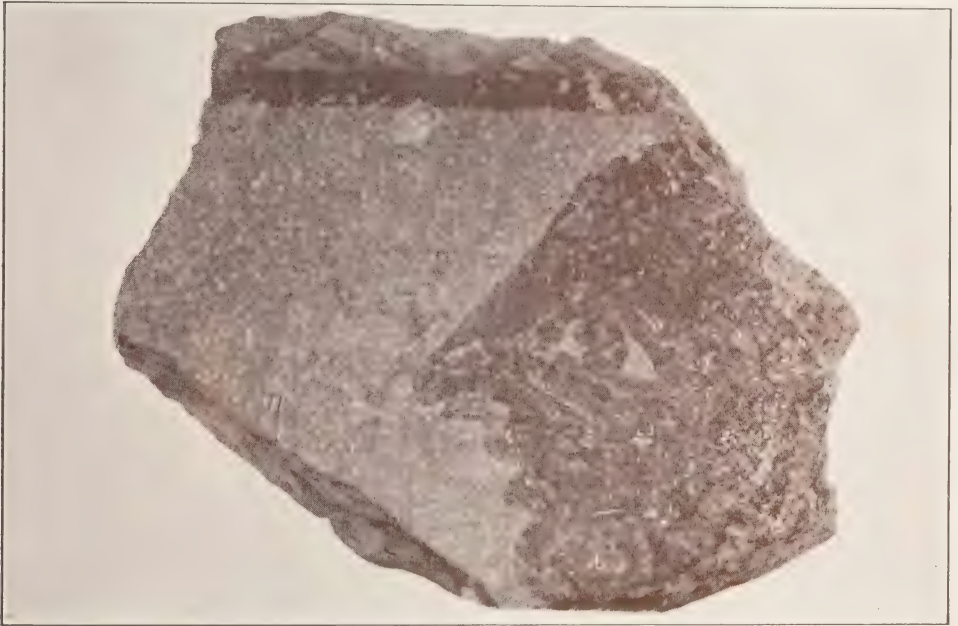
Portrait of a Canaanite man. A fragment of a pot of the period of Thothmes III. Early XV Century B.C.

what appears to be a woman of the same race. The latter has a lock of hair falling down by the side of her left cheek. These portraits are extremely valuable as they give us a picture of the Canaanites in Palestine at the beginning of the XVth century B.C.

EGYPTIAN MILITARY STANDARD, ETC.

We are now clearing away the upper debris over the eastern end of the temples of Thothmes III and have already found some interesting objects, including scarabs of Rameses II and Amenophis III from the level of Seti I. From the Amenophis III level have

come two scarabs of Thothmes III, one gold mounted and the other showing the figure of a sphinx; the head of a figurine of Ashtoreth; and the beautifully made bronze top of a military standard four inches in height, representing the head of Hathor with the horns of a cow and the solar disk on her head. The face has gold foil beaten over it and is well moulded. Behind the object are two staples by which it was fixed to the pole. We also found a cylindrical piece of bronze which was perhaps attached to the base of the pole. In the same room from which the standard head came, which is on the



Fragment of the same pot showing portrait of a Canaanite woman. Early XV Century B.C.

extreme edge of the tell, we discovered a scarab of Rameses II, so it is quite evident that the debris in which the standard head was found had been disturbed in ancient times. An interesting question arises as to whether there was a "Hathor" army division in Beisan in the time of Amenophis III, if the standard head does really belong to the reign of this king, just as we know there was a "Ra" division in the city in the time of Seti I. The latter division is mentioned in the inscription on the stela of Seti found at Beisan in 1923, which states that in the first year of his reign the king sent the division of Amen to the city of Hamath (at the entrance to the Yarmuk Valley), the division of Ra to the city of Beisan, and the division of Sutekh

to the city of Yenoam. This is the first mention in the hieroglyphic records of the division of an Egyptian army. We next meet with it in the account of the battle of Rameses II against the Hittites at Kadesh on the River Orontes, in which battle another division, that of Ptah, also took part. Representations of the gods Ra, Amen,



Bronze military standard with head of Hathor covered with gold foil. Period of Amenophis III. 1411-1375 B.C.

and Ptah are engraved on a silver trumpet found in the tomb of Tutankhamen, so it is quite likely that army divisions bearing the names of Ra, Amen, and Ptah were already in existence in the reign of this king. Another object of great value that has just been found in our Amenophis III level is a Hittite cylinder seal of hæmatite.

On the seal are represented two deities and also an unidentified animal with a sacred emblem above it. Before the animal is the first of the two deities, who holds some object, perhaps an axe, in his right hand. In front of his head is the Hittite hieroglyph which is believed to mean "god." Behind the animal is the second deity, who wears a conical cap. Against the back of his head is written the Hittite hieroglyph probably meaning "fort." In front of the latter deity is an ass, near which is some Hittite hieroglyph as yet undeciphered.

AMENOPHIS III LEVEL

During our excavations in the 1925 and 1926 seasons at the southern part of the tell, we discovered only one level of the date of Amenophis III, but we now find, on the same plane at the northern end of the tell, that there are two levels, an earlier one almost certainly belonging to the time of Amenophis III, and a later one belonging either to the end of his reign or to some era following this event and anterior to Seti I. The later level has been provisionally called "Post-Amenophis III."

Under a large wall at the eastern side of this level there was discovered a fine Egyptian faience finger ring bearing the sacred eye. This formed part of the foundation deposits that were placed below the main walls of the houses and temple of the level. Two faience cylinder seals showing deer were found on the floor near by. In this connection it is very interesting to note that we unearthed the antler of a deer in the Post-Amenophis III level. Not far from the seals were a painted pottery bull's head, which may have been the spout of a vessel or an attachment of a *kernos* (a hollow cylindrical ring used for sacred purposes) and the upper part of a figurine of the goddess Ashtoreth wearing a headdress like Hathor. Other interesting objects from the same area are an unusual type of pottery filter, shaped like a shallow perforated bowl with elongated handle, and a beautifully made ribbed knob of alabaster containing part of a bronze rod in the hole which is bored in its axis.

LINEAR WRITING

The most important find, however, in the Amenophis III level is the handle of a pottery vessel of light brown ware, with two groups of linear signs impressed upon it. This pot is not an importation from elsewhere, but was made and inscribed at Beisan, as its ware is exactly similar to that of hundreds of other pots of the same

age found on the site. Père L. H. Vincent, of Jerusalem, who has examined these signs, thinks that they belong to some mixed system of linear writing used in the XVth-XIVth centuries B.C. in the Oriental basin of the Mediterranean. The upper group of signs is



Pottery jar handle with signs resembling Cretan and Cypriote writing. Period of Amenophis III. 1411-1375 B.C.

very similar to certain elements of the Cretan linear writing, while the second group, on the contrary, resembles one of the signs of the Cypriote archaic alphabet. During our excavations in 1925 and 1926 in the Amenophis III level, we had already observed that there was a

Mediterranean influence at Beisan, which probably came via Cyprus from Crete and the Ægean regions; and the inscribed pot handle, as well as many other objects including pottery found this year, affords further evidence of the presence of this influence. In addition to the handle with linear signs, we unearthed a number of bowls in the same area with marks on their bases—single strokes, strokes in groups of two, strokes made into crosses, strokes formed into right angles, and so on. (Numerous pot handles with similar marks were



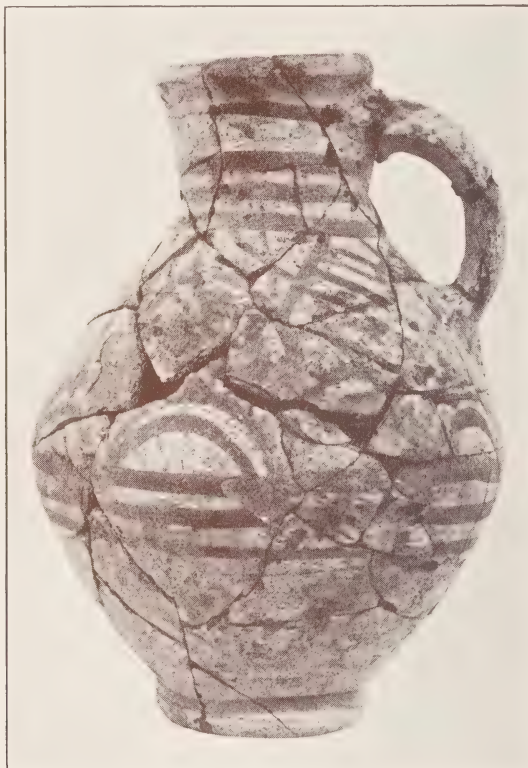
Pottery jar of the period of Seti I. 1313-1292 B.C.

found in the Pre-Amenophis III level.) These marks, which are also evidently Eastern Mediterranean in origin, are very much like those found many years ago on potsherds in the earliest levels of Tell el-Hesi, a mound situated sixteen miles east of Gaza. Probably the signs are merely potters' marks.

POST-AMENOPHIS III LEVEL

Although but few rooms have yet been uncovered in this level, their contents are rather interesting and comprise a collection of

forty bowls and dishes, one with a white plaster-like substance in it, all from one room; a broken figurine of Ashtoreth; and a forked antler six inches in length. This last object shows traces of having been cut or sawed off, but whether this was done while the animal was alive or dead cannot be said. The deer, like the gazelle, was probably a sacred animal and is frequently figured on cylinder seals found on the tell. It is named in *Deuteronomy*, xiv, 5, as one of the clean animals that the Israelites were permitted to eat, and in



Pot of Period of Seti I, decorated in purple.
1313-1292 B.C.

I *Kings*, iv, 23, it is mentioned in the list of game furnished for Solomon's daily table.

During the present season a large number of rooms belonging to the two levels of Seti I, which date respectively from the early and the late parts of his reign, have been excavated with interesting results.

EARLY SETI LEVEL

The thirty rooms just cleared out in this level have a narrow street running through them from north to south; this street, in Late

Seti times, was paved with small pebbles, a feature which we have not found elsewhere in Canaanite streets on the tell. On the paved street there lay a flint implement and some bones of an animal, perhaps a sheep. One room on the south edge of the mound in the Early Seti level was a granary, while circular ovens of pottery, having traces of ashes in them, were found in various other rooms. One room contained a quantity of pottery jars filled with sesame seed which probably in ancient times, just as it is today in Palestine, was used for making oil for sweets and for sprinkling upon biscuits. In a room to the northeast of the level there is a small manger made



Serpentine mould for making gold jewellery. Seti I Period.
1313-1292 B.C.

of bricks, somewhat similar in appearance to the two mangers for sacred animals found in our temple of Amenophis III during the 1925 season. All these mangers were probably used for gazelles or deer, traces of which animals have come to light in various levels on the tell. On a brick in the Rameses II level, to be referred to presently, we actually found the imprint of the hoof of a gazelle.

VOTIVE OFFERING, CHILD'S RATTLE, ETC.

Among other interesting small objects found were a child's pottery rattle and a pottery wheel, $4\frac{1}{2}$ inches in diameter, which formed part of a model chariot. Doubtless the Canaanite chariot represented by the model was not unlike the earlier chariots referred to in *Joshua*, xvii, 16, which enabled the Canaanites of Beisan and its valley to repulse the Israelites: "The children of Joseph said, The

hill is not enough for us; and all the Canaanites that dwell in the land of the valley have chariots of iron, both they who are of Bethshean and her towns, and they who are of the valley of Jezreel." As a matter of fact, it was not until about 1000 B.C., when the Philistines were apparently driven out of the fort by King David, that the Israelites took possession of Beisan.

LATE SETI LEVEL

The very few rooms of this level found this season were situated above the thirty rooms of the Early Seti level and were built of an inferior kind of brick that almost crumbles at a touch. In some instances small beams of wood were used as foundations for the walls. From one of the rooms came two objects of particular interest, one, a beautifully made axehead of bronze, the other, a conical steatite



Bronze military axehead. Late Seti Period. 1313-1292 B.C.

seal showing two gazelle-like animals. In an adjacent room was discovered a pottery model of the head of an animal, perhaps a horse.

RAMESES II LEVEL

The walls of the Rameses II level are the best built of all the walls found on the tell, for they stand upon solid foundations of stone and are made of a very hard kind of brick. In certain places, particularly at the north of the summit of the tell, there is a solid mass of clay, as hard as the bricks themselves and some three feet in height, placed between the stone foundations and the brick walls. Sometimes, however, timber was laid between the stones and the bricks.

PORTRAIT OF BUILDER OF DAGON TEMPLE

The level has yielded some very important objects, especially a portion of a door-jamb bearing a portrait of Rameses-Wesr-Khepesh,



A room of the period of Rameses II. 1292-1225 B.C.



Inscribed door jamb with picture of Rameses-Wesr-Khepesh, the builder of Dagon's Temple where the Philistines placed Saul's head. Period of Seti I. 1313-1292 B.C.

the builder of the southern temple of Rameses II, which is none other than the "temple of Dagon" of I *Chronicles*, x, 10, in which the Philistines placed the head of Saul of Israel after he was slain in the battle on Mount Gilboa. During the 1925 season we discovered an inscribed door-jamb beneath the temple, giving the name of Rameses-Wesr-Khepesh, and also part of the titles of his father. The door-jamb found this season supplies the missing titles and the father's name (Thothmes), and shows Rameses-Wesr-Khepesh him-



Limestone figure of deity. Period of
Rameses II. 1292-1225 B.C.

self in a sitting position with his hands raised in adoration. He wears a voluminous linen garment and a headdress. It is interesting to note that one of the sons of Rameses II was called Thothmes, but he cannot be the Thothmes referred to on the door-jamb. By joining together the hieroglyphic texts on the two jambs we get the following inscription: "Overseer of soldiers, commander of the bowmen of the Lord of the Two Lands [*i. e.*, Pharaoh], royal scribe great steward, Rameses-Wesr-Khepesh, the son of the fan bearer at the right hand of the king, chief [of the bowmen, overseer of

foreign countries, Thothmes.]” The last words in brackets are those on the newly discovered jamb. It can easily be understood that these stones are of great value, especially when it is realized that we have found for the first time in the history of excavation the name and portrait of the builder of a Canaanite temple mentioned in the Old Testament!



Roman bronze incense sprinkler; probably II Century A.D.

BRICKS IMPRINTED WITH FEET OF CHILD, DOG, AND GAZELLE

One of the interesting finds in the Rameses II level was a series of nine bricks bearing the impressions of the feet of a child, of about four or five years of age, of the paws of a dog, and of the hoof from a gazelle's forefoot. These impressions were of course made just after the bricks were fashioned into shape. We compared the imprint of a forehoof of a tame gazelle kept by the District Officer at Beisan with the imprint of the cloven hoof on our brick, and

found them to be identical in shape. It is objects such as the above that have a real human interest for us, for we may picture the newly made bricks lying on the brickmaker's field at the foot of the tell, and a little child, accompanied by her two pets, a dog and a gazelle, running and skipping about over them. This little episode of three thousand two hundred years ago is as clearly conveyed to us by the imprints on the bricks as if we had found it recorded in writing.

MODEL OF UNKNOWN DEITY

From below a wall at the eastern end of the Dagon temple there came an oblong piece of stone, $3\frac{1}{4}$ inches in height, with the head of a deity at the top. One side of the stone is incised with the figure of a man or god holding a captive whose legs are kicking in the air. Under the former figure is what appears to be a stand with four legs shaped like those of a man. On the other side of the stone is a similar stand surmounted by a man or deity with uplifted arms. This object bears a strong resemblance to certain plaquette idols found in Cyprus.

Four scarabs, one of which bears the cartouche of Rameses II and another that of Thothmes IV, came from the Rameses level. Other objects from the same place include Egyptian amulets and a Canaanite open pottery lamp with single spout.

LATER LEVELS

Among the objects from the later levels on the tell may be mentioned fifteen pottery lamps of the cup and saucer type, eight of which have holes leading from the bottom of the cup into the saucer (Late Ramesside level); a bronze coin of Ptolemy Soter I, a bronze coin of Herod Agrippa I, a Roman incense holder of bronze consisting of a tripod cup with handle (Hellenistic and Roman levels); and a bronze coin of the Emperor Justin II, 565-578 A.D., minted at Antioch (Byzantine level).

At the time of writing we are working in the lower Pre-Amenophis III level, which gives every indication of being one of the richest of all the levels on the tell so far as painted pottery and other antiquities are concerned. It will probably be some time before we shall be in a position to clear out completely the new Canaanite temples, as there is still a great mass of debris to be removed from both without and within their walls.

DISCOVERY OF ROYAL TOMBS AT UR OF THE CHALDEES

BY L. LEGRAIN

YEAR after year the excavations at Ur of the Chaldees seem to become more important and interesting. But the discovery of royal tombs reported within the last week by C. Leonard Woolley is so wonderful that the readers of the MUSEUM JOURNAL must hear of it while awaiting the complete account of the results of the campaign which will appear in the March number of this magazine. The tombs are so rich in gold that they inevitably recall to mind the treasures of Agamemnon at Mycene. And a remarkable shaft tomb, covering an area of 40 x 17 feet, where the royal person was accompanied in death by his retainers and took with him his chariot with two asses and three grooms, his six bearers of the golden lances and arrows, his women singers and harp player, all bearing their gold crowns; his gaming-board, his wardrobe, and a rich treasury of gold, silver, copper, stone vessels, weapons and ornaments: all this reminds us of Herodotus's account of the burial of a Scythian king.

The first tomb discovered early in November was the tomb of Mes-kalam-dug, with his name engraved in Sumerian characters on his golden bowl. He was found at the same level that yielded last year the famous golden dagger, and he thus belongs to a period centuries prior to that of Sargon and the First Dynasty of Ur. This early period, about B.C. 3500, before unknown to archæology, is now illustrated by examples of art unrivalled by those of any later time in Mesopotamia. The burial is of the normal type composed of a wooden coffin surrounded by vessels and weapons, but distinguished by a spear stuck in the soil at the head. The spear is of copper with a gold-plated shaft. The equipment around the coffin included one gold bowl fluted and engraved, one bowl and one cup of plain gold, and many other vessels of stone, clay and copper; one bowl, one lamp, one libation jug and a patten of silver; spears, axes and daggers, two of the last having gold hilts and one a silver hilt. Inside were found round the body a silver belt with a gold dagger and a silver sheath, the hilt being made of gold and

silver; a whetstone of lapis hanging from a gold ring; an ordinary axe and a double-headed axe of gold; a gold inscribed bowl; two lamps, one of gold, the other of silver; a gold pin; a gold wreath with leaves and beads; necklaces with figurines of a ram, a frog and a monkey in gold; and over the head a complete peruke in solid gold, lifesize.

This first grave, with its wealth of equipment, is one of the finest found in Mesopotamia; but the other, the shaft grave, is unique and throws a new light on the early burial customs of the Sumerians. The grave itself is a vault built of plano-convex bricks and stones, not yet opened at the time of this writing. In the shaft above the grave were placed the general offerings and with these offerings, the bodies of a large number of people, sacrificed to accompany the king to the next world. One part of the shaft contained no objects but a rectangle made of large rough limestone blocks one course thick sloping towards the centre, which may have been the altar where the human victims were offered.

The first object recovered was a wooden harp, inlaid with gold and lapis, the sounding box terminating in a bullock's head in gold with curls, beard and eyes of lapis. More inlay and engraved shell plaques decorated the sounding box. The upright had twelve copper keys, gold-plated, for the twelve strings. Unfortunately all the woodwork has perished and only the soil above keeps the inlay in position. The harp player was buried by his harp, his hand still resting on the strings on which he played his last tune. Behind him ten women and two children were buried in two rows of six, with their golden crowns and beads, crescent-shaped earrings, and the copper pin used to fasten their veils: the choir which sang the funeral dirge.

The state chariot was near, with its team of two asses and the grooms keeping a solemn watch by the tomb. Six small golden heads of bulls and lions and three large lions' heads decorated the side rail, gaily painted in white, blue and red on a black ground. Silver heads of panthers and lions ornamented the front rail. Beard and mane of lapis lazuli and shell were added below the heads. Here too the woodwork has perished. On the pole between the two animals a rein-ring of silver was surmounted by an exquisite piece of realistic art, a donkey in gold. The copper collars of the asses were decorated with an eye pattern.

Four arrows of gold and four spears of copper with shafts bound in gold and silver were planted in the middle of the grave,

not far from a shallow trench with the bodies of six men, probably the bearers.

A gaming-board with its complete set of gaming pieces and dice provided for the amusement of the dead. One set of pieces is composed of seven black squares with five dots; the second is made of seven shell plaques engraved with scenes of animal life.

A long wooden box probably contained the clothes of the dead. Only the mosaic work in shell and lapis and a band of gold decorating the front have been preserved. The keeper of the wardrobe is buried at the end of the chest, wearing his frontlet of beads and gold, his gold chain and his gold earrings.

Many vases, weapons, and ornaments were arranged around the box, among which the most remarkable are thirty silver tumblers and bowls; a charming semicircular box of silver with a lid inlaid with a lion in shell engraved in red on a background of lapis; and four magnificent gold vessels: a lamp with a trough spout, a chalice, an oval bowl with a foot and a spout, and a fluted and engraved tumbler.

The discovery, which bespeaks a high degree of material civilization in Mesopotamia in B.C. 3500 and testifies to the survival of earliest customs, later forgotten, is important for the general history of civilization and supplies fresh information and material for new theories.

LECTURES

During the winter months, the Saturday afternoon Course of Lectures for Members of the Museum and their friends and the Sunday Afternoon Course of Lectures for the Public will be continued.

SATURDAY AFTERNOON LECTURES AT 3 O'CLOCK

- | | | |
|----------|-----|--|
| January | 7. | An Explorer's Life, by Dr. John Garstang. |
| January | 14. | The Wonderland of Big Game, by Major A. Radclyffe Dugmore. (Motion pictures.) |
| January | 21. | Rome: The Imperial City, by Mr. Fiske Kimball. |
| January | 28. | Research and Discovery in Palestine, by Dr. John Garstang. |
| February | 4. | Bolivia, by Mr. Charles Wellington Furlong. |
| February | 11. | The Bushmen, by Mr. C. Ernest Cadle. (Motion pictures.) |
| February | 18. | Into Forbidden Afghanistan, by Mr. Lowell Thomas. (Motion pictures.) |
| February | 25. | Lapland and Norway, by Dr. Michail M. Dorizas. (Motion pictures.) |
| March | 3. | Mountain and Seacoast of Ecuador, by Dr. Robert Cushman Murphy. (Motion pictures.) |
| March | 10. | With Roosevelt in Africa, by Mr. Edmund Heller. (Motion pictures.) |
| March | 17. | Baffin Land and Beyond, by Mr. George Palmer Putnam. (Motion pictures.) |
| March | 24. | Lecture to be announced. |
| March | 31. | Lecture to be announced. |

SUNDAY AFTERNOON LECTURES AT 3.30 O'CLOCK

- | | | |
|---------|-----|--|
| January | 8. | Venice Past and Present, by Mrs. Loring Dam. |
| January | 15. | The Crusaders in the East, by Miss Elizabeth G. Creaghead. |
| January | 22. | My Own People, the Tlinkit, of Today, by Situwuka (Louis Shotridge). |
| January | 29. | Over the Route of Alexander the Great, by Mrs. Walter Nowak. |

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- February 5. Life in an Excavation Camp, by Dr. Leon Legrain.
February 12. The Story of Naples, by Mrs. Loring Dam.
February 19. The Golden Age of the Celestial Empire, by Miss Helen E. Fernald.
February 26. Masks in Primitive Festivals, by Miss Elizabeth G. Creaghead.
March 4. Society in Rome under the Cæsars, by Mrs. Walter Nowak.
March 11. Some Islands of the South Seas, by Mr. H. U. Hall.
March 18. From the Mongols to the Manchus, by Miss Helen E. Fernald.
March 25. My Trip to Mexico, by Dr. J. Alden Mason.

GALLERY TALKS

A series of Gallery Talks for Members and Visitors to the Museum will be given by the Docents on Saturday afternoons at three o'clock during the months of April and May.

- April 7. A Holy City of Babylonia, by Miss Elizabeth G. Creaghead.
April 14. Life and Legends of Buddha, by Mrs. Walter Nowak.
April 21. Egyptian Magic, by Mrs. Walter Nowak.
April 28. Oriental Textiles, by Miss Elizabeth G. Creaghead.
May 5. Ancient Jewellery, by Mrs. Loring Dam.
May 12. Character of Chinese Painting, by Mrs. Walter Nowak.
May 19. The Gold Treasure of the Incas, by Mrs. Loring Dam.
May 26. Chinese Jades, Lacquer and Porcelains, by Miss Elizabeth G. Creaghead.

FORM OF BEQUEST

I give and bequeath to the Trustees of the University of Pennsylvania the sum of.....dollars, in trust for the uses of the University Museum. (Here, if desired, specify in detail the purposes.)

SPECIAL NOTICE

In order that The University Museum may give appropriate recognition to the substantial gifts which have been already received, and which will hereafter be donated or bequeathed for the development of its resources and the extension of its usefulness, the Board of Managers have adopted the following classification for contributors and members, and have resolved that the names of the donors of aggregate sums of \$25,000 and upwards, in cash, securities, or property shall be inscribed upon a suitable tablet or tablets, to be properly displayed in the Museum.

There shall be five classes of Contributors designated as follows:

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<i>Associate Patrons,</i>	“ “ “ “ “ “ 5,000
<i>Fellows,</i>	“ “ “ “ “ “ 1,000

There shall be four classes of Members designated as follows:

<i>Life Members,</i>	who shall contribute \$500
<i>Contributing Members,</i>	“ “ “ 100 annually
<i>Sustaining Members,</i>	“ “ “ 25 “
<i>Annual Members,</i>	“ “ “ 10 “

Contributors and Members are entitled to the following privileges: admission to the Museum at all reasonable times; invitations to receptions given by the Board of Managers at the Museum; invitations and reserved seats for lectures; the MUSEUM JOURNAL; copies of all guides and handbooks published by the Museum and free use of the Library.

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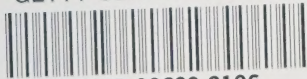
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